CHARACTERISTICS OF BLIND AND VISUALLY HANDICAPPED PEOPLE IN PROFESSIONAL, SALES, AND MANAGERIAL WORK

MARY K. BAUMAN

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CHARACTERISTICS of Blind and Visually Handicapped People in Professional, Sales, and Managerial Work

by

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and from the
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NORMAN M. YODER, PH.D., Commissioner

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FOREWORD

On many occasions, it has been my privilege to introduce publications resulting from studies sponsored by the Vocational Rehabilitation Administration.

A year ago, I was proud to recommend "Placing the Blind and Visually Handicapped in Professional Occupations." Now I have the opportunity to call to your attention a second volume resulting from the same study showing the significant and valuable work carried on by the Pennsylvania Office for the Blind and the Personnel Research Center in this endeavor.

The interrelationships between such characteristics as amount of vision at time of interview, age at loss of sight, number of years of blindness, marital status, educational factors, and other statistical facts in this book should be very useful to vocational rehabilitation counselors and other professional people in all phases of work for the blind.

What is demonstrated concerning blind men and women working in the professions will, I hope, give rise to further research in many areas involving social and academic problems confronting the blind college student.

This analysis of data resulting from over 400 personal interviews with successfully employed blind persons will, we are certain, trigger comparative research efforts which in turn will bring us ever closer to the realization of our dream of giving access to social and economic activity in accordance with an individual's interests, abilities, knowledge, and skills.

Mary E. Switzer
Commissioner
Vocational Rehabilitation Administration
Department of Health, Education and Welfare

INTRODUCTION

During the summer and autumn of 1960 more than 400 members of at least 30 professional and business fields generously gave of their time and experience in order that others who wished to enter similar fields might have this experience as a guide. All of these people were blind and many of them had been blind from birth or from childhood so that they had been trained in school and college and had entered their professions as blind people. Some had lost their vision as adults and the experience they shared was that of a person seeking to adjust to blindness either through learning a new profession or through patiently persisting in work for which they had been trained when normally seeing.

This study was done under a grant from the Vocational Rehabilitation Administration to the Pennsylvania Office for the Blind, and it culminated in a training program for rehabilitation counselors who would specialize in serving blind clients who sought careers at the professional level, or in business occupations for which college is commonly regarded as standard preparation. As a result of the study, a manual and guide for counselors was also published under the title, "Placing Blind and Visually Handicapped Persons in the Professions."[1]

Data for the study was collected by interviews, most of which were done by visually handicapped persons whose own experience increased their sensitivity to the problems of the interviewees. The interviews were electronically recorded, forwarded to a central spot and then transcribed and analyzed. The first analysis, already published in the book mentioned above, emphasized job information, especially full descriptions of the work done and how it was managed without vision. For each profession there was also extensive discussion of training, procedures for obtaining employment, technical aids and sources of needed assistance.

However, the interviews also included a wealth of information about the backgrounds of the men and women who were interviewed, about their experiences in school and college, and their feelings about their training, their job opportunities, and relationships with the world around them. Many also offered very thoughtful advice to blind persons who might seek to follow in their paths. In the belief that this information provides a unique picture of blind people in the profes-

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[1] Bauman, Mary K. and Yoder, Norman M. *Placing the Blind and Visually Handicapped in Professional Occupations.* Harrisburg, Pa. Office for the Blind, Department of Public Welfare, Commonwealth of Pennsylvania, 1962.

sions, and in the belief that this picture can be of assistance to those who counsel and otherwise work with blind clients, a further grant from the Vocational Rehabilitation Administration now makes possible this detailed analysis.

We shall first describe our group of interviewees, trying to indicate how nearly they probably represent a true cross-section. Then we will study inter-relationships of facts and attitudes, not necessarily meaning to indicate cause and effect but with the hope that at least some of these apparent inter-relationships will prove thought-provoking.

In evaluating this material, it should be kept in mind that the major intent of the interviews was to collect data about the nature of work done and how it was done. The comments concerning attitudes were made in response to standardized questions in the planned interview, but were probably often regarded, by the interviewees, as incidental comments. These results should not be regarded as the results of a questionnaire specifically seeking evaluation of experiences and attitudes outside the job area.

Statistical Treatment

Statistical procedures have been designed chiefly to (1) describe the interviewees completely and accurately and (2) evaluate the significance of differences between subgroups which could be identified on the basis of such characteristics as sex, age, amount of vision, nature of education, etc.

Since the total study was designed to obtain occupational information, not to support any group of hypotheses about blind people, we have preferred to be conservative in our interpretation of differences and have at times used more than one statistical procedure to avoid reporting significance for chance variations. Where appropriate, two-tail tests of significance have been used.

Anyone interested in more detailed descriptions of the procedures used will find such information in standard manuals of statistics under the following headings:

Mean and standard deviation
Chi-square
Tests of Significance—T[1]

[1] See Peatman, John G. *Descriptive and Sampling Statistics.* Harper, N. Y., 1947.

CHAPTER I

DESCRIPTION OF THE GROUP

While we have no major reason for thinking this group atypical, it is important to note that the interviewees were not selected through sampling procedures. The original bank of names from which interviewees were selected was developed as follows:

Early discussions of the possibility of studying blind people in the professions raised some question whether a sufficient number of persons could be reached or would be willing to be interviewed. It was also well-known that the confidentiality of records would make it impossible for agencies to disclose the names of their clients directly to the research group. Therefore, the Committee for Research on Problems Associated with Blindness composed a letter which stated their belief in the need for information concerning the professions, and their interest in knowing whether professional workers would be willing to cooperate in an occupational study. State agencies and schools for the blind were asked if they would be willing to send this letter, along with a return post card, to professional persons who were known to them.

As a result of this procedure, about 450 blind professional persons returned post cards indicating their willingness to be interviewed. It should be noted that the agencies and schools often sent the letters to persons who had not been their clients but whom they knew to be doing professional work. From the beginning, therefore, the group included a number of individuals who had not been agency clients. This number was greatly increased after the study got under way because a large number of additional names were offered by the interviewees themselves. When our interviewers talked with them, they often suggested friends and colleagues, and at times were kind enough to make the initial contacts to assure our interviewers a welcome. At the end of the study we had the names of 888 professional persons, all apparently willing to share their experience and thus graciously provide assistance to other blind people who might seek professional careers. Of these, 434 were interviewed and it is their responses which form the basis of our present report.

We admit that there may be some bias in the selection of those interviewed. The major factor in this selection was, unfortunately, the amount of money available for the project. Our contract originally stipulated that 200 persons must be interviewed. We quickly discovered that blind workers were active in so many professions that no

reasonable sampling of their experience could be obtained within the limits of 200 interviews. Since our major goal was to describe as many different jobs as possible, seeing enough people in each kind of job to be sure they represented a picture of the field, we made a special effort to reach individuals who seemed to be doing the less usual kinds of work. For reasons of the budget we had to omit a few individuals who lived in spots distant from the paths our interviewers were taking; where it would have cost perhaps a hundred dollars to obtain a single interview it was economically impossible to include that person regardless of how interesting his job sounded. We also lost some interviews because the names were suggested to us after our interviewer had passed through that area; again it was economically impossible to make return trips. In other cases individuals were omitted simply because we already had a representative number of interviews in their field and because the work of the field was generally well-known to rehabilitation counselors. This latter particularly applies to the field of home teaching which had just been very thoroughly studied by Cosgrove.[1]

By making comparisons of some of our data with statistics from other sources, it may to some extent be possible to evaluate how nearly those interviewed are representative either of blind people in the professions, or of all people in professional work. Where comparable information is available, it will be presented throughout the remainder of this chapter.

In discussing the various fields of business and professions upon which reporting is done, we will use the same breakdown used in the book "Placing the Blind and Visually Handicapped in the Professions." Those familiar with that book realize that under each of the professional headings a considerable variety of activity often is included. The field of law, for example, includes not only the lawyer in private practice but the lawyer in the employ of business and government, the lawyer in political positions, judges, examiners, and even justices of the peace; even within a field named by a single title, there is often, therefore, quite heterogeneous activity on the part of the interviewees. Nevertheless, in order to make the material manageable, it is necessary to group individuals as nearly as possible with those of common training, interest, and activity.

In Table 1 we show the number of names available to us in each of the professional fields and the number interviewed, while Figure 1 puts this into graphic form.

Out of a total of 888 names, the 434 persons interviewed make up 48.8%. In other words, nearly half of those whose names were ultimately presented to us were actually interviewed. However, the dia-

[1] Cosgrove, E. *Home Teachers of the Adult Blind; What They Do, What They Could Do, and What Will Enable Them To Do It.* Washington, D. C.: Am. Assn. of Workers for the Blind, 1961.

gram shows that the percentage interviewed in the various fields varies from 27.5% for home teaching to 86.7% for psychology.

Quite unintentionally, we also seem to have had some bias in favor of interviewing men. Out of a total of 212 names of women, only 91, or 42.9%, were interviewed, whereas 343 men out of a possible 676 were interviewed, or 51.5%.

Table 2 compares the place of residence for those interviewed with the place of residence for the total available list. Here it is evident

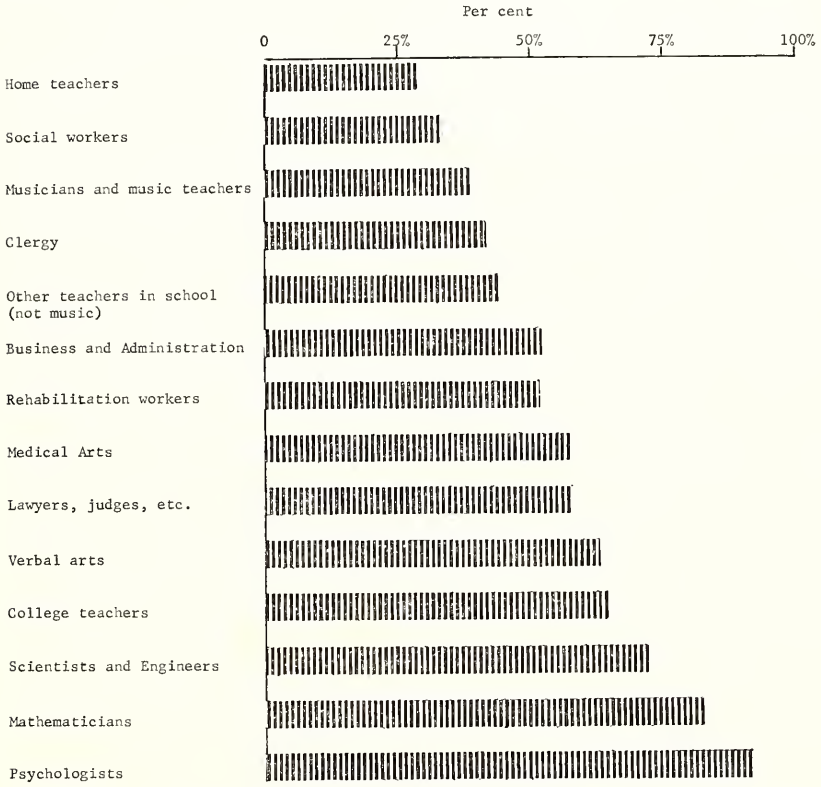

FIGURE 1. Per cent interviewed out of total available names in each profession.

that our bias has been in favor of city dwellers who were easier to reach. For purposes of these statistics, a city has been defined as having a population of 25,000 or more.

1. *Basic Life Characteristics*

It is obvious that males dominate our group of interviewees, forming 79% while females form 21% of the total group. We do not believe that this represented any deliberate selection on our part nor do we

believe that conclusions should be drawn from these figures regarding the availability of professional positions for blind women or the desire of blind women to enter the professions. For all women, seeing and blind, there is a great tendency to withdraw from the professions, or from employment in general, with marriage.

It may be of interest to note the percentage of women in two other studies of blind workers, although the situations cannot be regarded as exactly comparable since both these studies include all types of employment, and some unemployed persons, with professional workers forming a very small part of the total.

In the Purdue University project to develop new test materials for use with adult blind persons,[1] women made up 33.5% of the criterion group. In the study, "Adjustment to Blindness,"[2] women formed 29.6% of the total in the study, and 28.4% of the employed group.

It is quickly evident from Figure 2 (based on Table 3) that in our group there is a very much larger percentage of married men than of married women. Indeed the percentages for each category of marital status for the men very closely follow the percentages for the total male population.

On the other hand, in marital status, the women in our group do not at all follow the national pattern either for all women or for employed women; only 22.0% are married, while 73.6% are single and 4.4% are widowed. Employed women (not those at the professional level but all women in the civilian labor force) reported in the 1960 census included 23.4% who were single, 60.4% married and 16.2% widowed, separated, or divorced. (See Figure 2.)

While it is possible that if figures were available for sighted women functioning in the professions represented in our study we would find that a larger proportion were unmarried, it seems extremely unlikely that the figures would approach the dominance of single women found in our data. The large percentage of single women, the small percentage of married women, in our group differs very significantly from any comparable figures for the total population and points up the serious difficulty the capable and well educated blind girl faces in making a suitable marriage.

In age distribution, men and women in our group do not materially differ. As shown in Figure 3 (based on Table 4), for both men and women, approximately half the group falls below the age of 40, half over it. Perhaps the most significant difference lies in the fact that we interviewed only one woman over the age of 70, while we interviewed

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[1] Tiffin, Joseph, Project Director. *Final Report: An Investigation of Vocational Success with the Blind.* Indiana: Purdue Research Foundation, Purdue University, 1960.

[2] Bauman, Mary K. *Adjustment to Blindness: a study as reported by the Committee to Study Adjustment to Blindness.* Pennsylvania: State Council for the Blind, 1954.

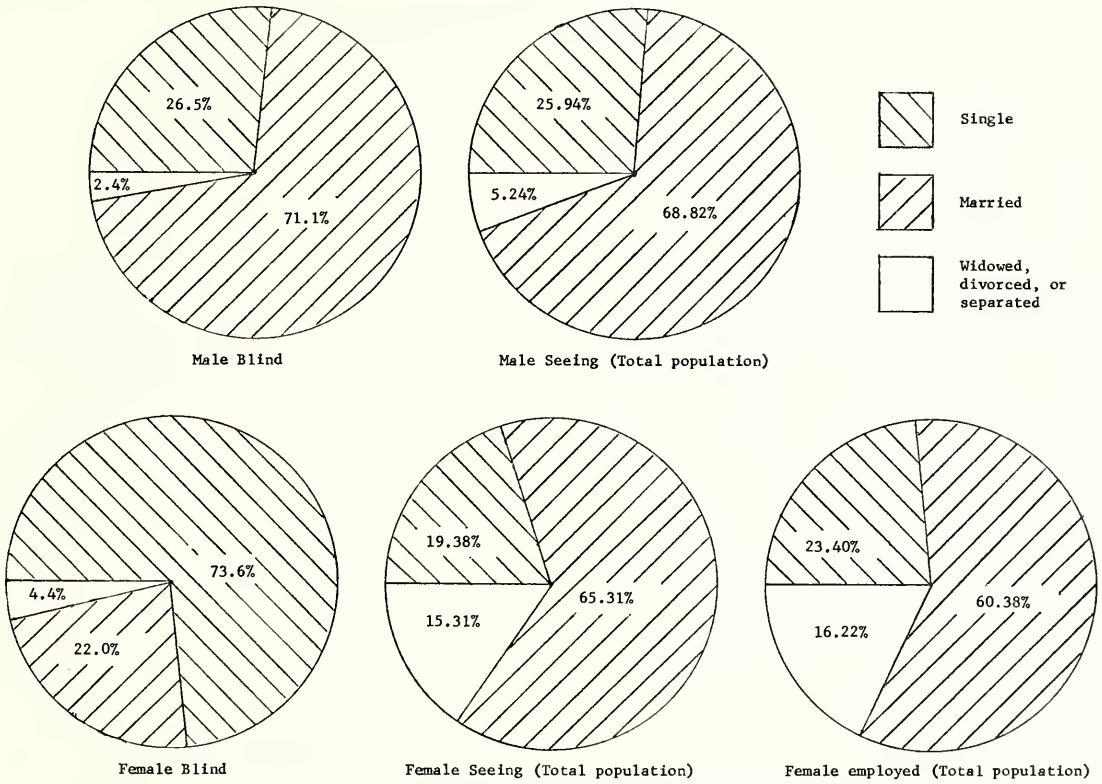

FIGURE 2. Marital status compared with general population.

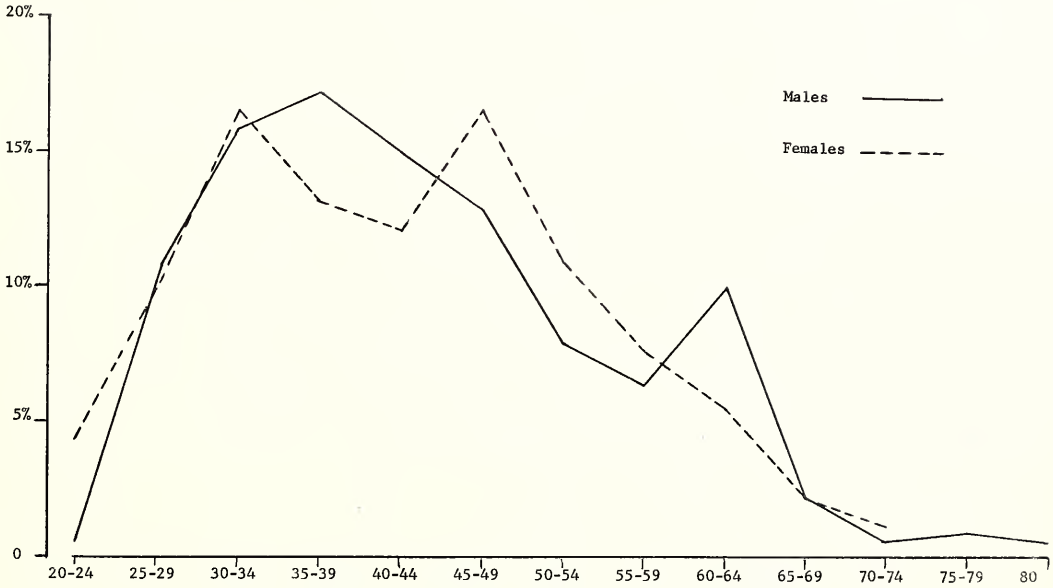

FIGURE 3. Distribution of ages for men and women.

five men in their seventies and two in their eighties. The difference between the mean age for women (42.35 years) and the mean age for men (43.55 years) is not significant.

Census figures indicate a median age of 38.5 years for those in "professional and related services."[1] However, from the large number of very young workers shown in this tabulation, it is clear that the group must include a great many who are not college graduates. A report produced by the National Education Association[2] indicates that the median age of all teachers in 1960-61 was 40.9 years, while a similar report for the legal profession places their median at age 46.[3]

The criterion group of the Purdue University project cannot be used for comparison since it was deliberately limited to persons between the ages of 20 and 50. In the study of *Adjustment to Blindness,* the mean age of the employed group was 40.04 years.

These comparisons seem to indicate that the blind professional worker is pretty close to the age pattern of seeing professional workers and also close to the pattern of blind workers in general. The point here is that it has not taken the blind student significantly longer to get through college because he had to accomplish this without vision. Also, the group which makes up the present report is not heavily weighted with older persons, professional people who lost their vision late in life.

2. *Visual Characteristics of the Group*

For purposes of this study, amount of vision has been defined in the following five categories:

a) totally blind;

b) light perception or light projection but insufficient vision to be of real use even in travel;

c) perception of large objects and movement to a degree which may be defined as travel vision, but no ability to read print even with special magnification;

d) travel vision plus the ability to read print at least for brief periods of time and with special magnification. This may be regarded as enough reading vision to enable the individual to refer occasionally to some kind of printed or written material, usually prepared by himself or his family to fit his very special visual needs.

e) reading vision, by which we indicate that the individual can regularly and frequently and without too much difficulty refer to written or printed material although he may require special magnification to do this and the materials may have to be large print, grease pencil or similar forms devised by him. The individual with this

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[1] *1950 Census of Population,* Volume II: Characteristics of the Population.
[2] *The American Public-School Teacher,* 1960-61. Research Monograph 1963-M2, National Education Association.
[3] *The 1961 Lawyer Statistics Report.* American Bar Foundation.

amount of vision can and usually does refer to ink print materials as part of his work and frequently regards this as necessary to his job.

Figure 4 (based on Table 5) indicates that a larger percentage of our male interviewees than of our female interviewees fell into the first two vision categories, that is, had less than useful vision. The T value for this difference is 2.3 which is significant at the 5% level of confidence. Computation of chi-square indicates that there are 5 chances in 100 that this pattern of frequencies could occur by chance.

This means that in evaluating differences of history or attitude for men and women in our group, we must always beware of confusing what appear to be sex differences with what may really be differences in the amount of vision represented by these two groups.

Our data presented some problems with regard to classification of the age at which vision was lost, since in a number of cases the loss took place gradually. As nearly as possible, in these cases, we have assigned as the age or date of loss that point at which the individual seemed to identify himself with blind persons, such as transferring to a school for the blind, seeking counsel from an agency for the blind, seeking a travel aid, etc.

In Table 6 (see Figure 5) age of loss of vision is classified in five year intervals varying from those born blind to a few whose visual loss occurred after the age of 55. Among the women, 40.7% were born blind while only 25.4% of the men fall into this category. For the men there are markedly higher percentages with loss of vision between the ages of 20 and 35. This is the natural result of the fact that a number of the men are war-blinded and the men also include a relatively large percentage with traumatic loss during these active years. A similar pattern is found in the study of *Adjustment to Blindness;* probably this pattern is characteristic of the blind population and not a special characteristic of our group.

The effect of these facts upon our study can best be stated in terms of the fact that while only 17.6% of the women lost their vision after becoming adults (i.e. age 20 or over) 32.6% of the men had achieved this age and presumably considerable personal and career independence before losing their vision. This difference is significant at the 0.1% level.

In view of the rather widespread opinion that services for the blind received a great impetus at about the time of World War II and that these services have not only been enlarged but have become greatly varied and far more professional in nature since that time, it was felt that there might be value in studying the date of loss of vision. Distributions in terms of ten-year intervals are given in Table 7 and pictured in Figure 6. It will be noted that a much larger percentage of men than of women lost their vision after 1940. (T—2.8, significant at the 1% level of confidence.) Therefore, a larger percentage of the men have had the benefit of these enlarged and more professional

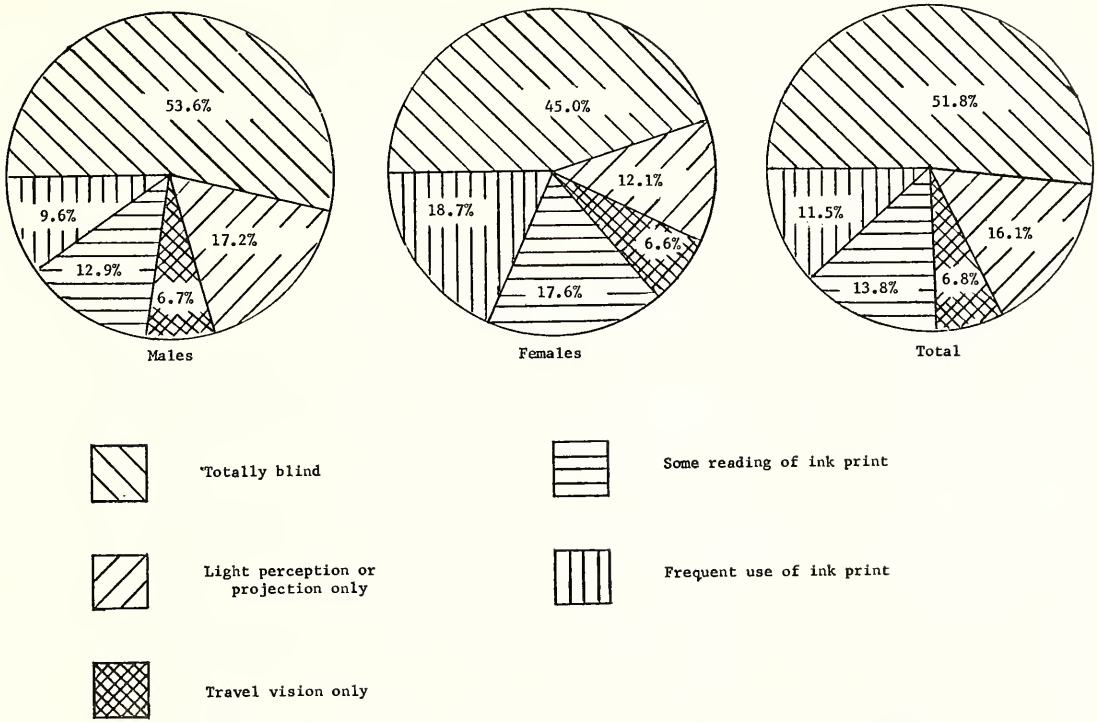


FIGURE 4. Amount of vision for men, women, and the total group.

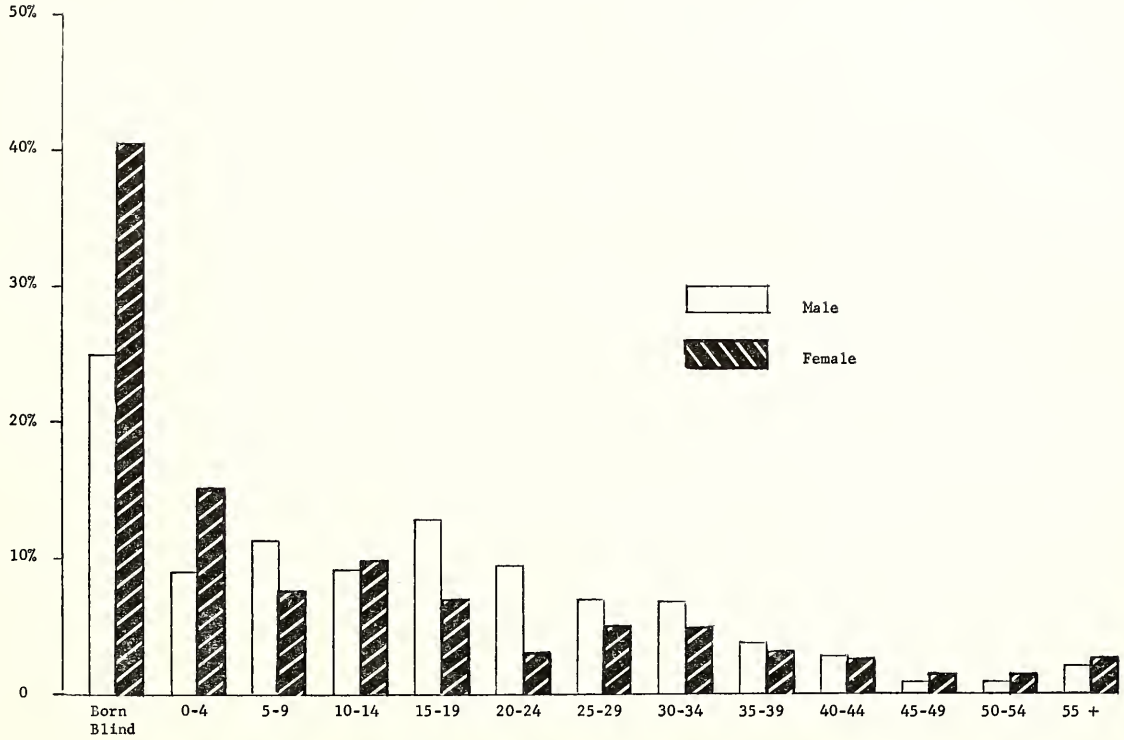


FIGURE 5. Age of loss of vision for men and women.

services. If the success of the men has taken a different form, or been greater, or come more quickly, the cause of the difference between them and the women on this point may not lie in the sex difference but in the difference in type of services available to them. This would probably be especially true for the war-blinded for whom outstanding provision was made both through the Armed Services and through the Veterans Administration.

Naturally, an almost identical pattern is obtained if, instead of date of loss, we study the number of years the members of our group have been blind (Table 8). A significantly larger number of men than of women have been blind for only 20 years or less. (T—2.51, significant at the 1% level)

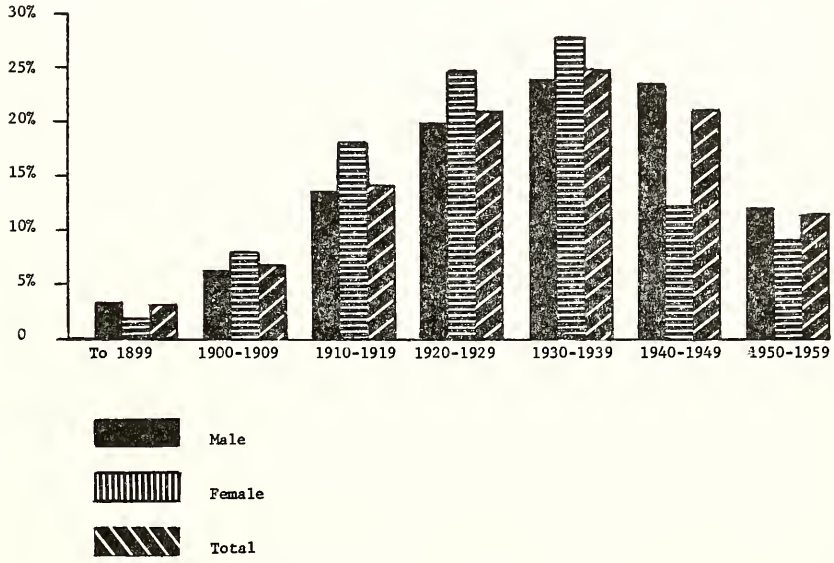


FIGURE 6. Date of loss of vision.

A final factor concerning vision is the cause of blindness. In talking with our interviewees no effort was made to obtain this information in medical terms. However, with very few exceptions, it was clearly possible, from what the individuals said, to categorize their visual loss as related to one of the following:

a) congenital,
b) trauma, other than war-blinded,
c) war-blinded,
d) non-traumatic causes resulting in sudden loss of vision,
e) non-traumatic causes resulting in gradual loss of vision.

Table 9 shows the number of men and women for whom visual loss falls into each of these categories. In view of frequent discussions, at

least at the level of casual conversation, comparing the effects of sudden loss of vision with either gradual loss (which may permit the individual to make adjustments gradually) or congenital blindness, it is interesting to note that in our total group about twice as many have either congenital blindness or suffered gradual loss (Figure 7). However, again the pattern is very different for the men than for the women. Nearly half, or 44.0% of the women report congenital blindness while only 27.4% of the men do so. When we add to this the fact that gradual loss resulting from non-traumatic causes is reported by 39.5% of the women and by only 28.9% of the men, we find that only 16.5% of the women report sudden loss of vision, while this is reported by 41.9% of the men. Again this is a very significant difference (Chi-square indicates only one chance in 1000 that these differences are the result of chance) and might well color attitudes. Again this pattern resembles that found in the Adjustment Study group and probably is fairly representative of the blind population.

3. *School History of the Group*

Analysis of the histories of our interviewees led us to the conclusion that for all except one (whose pre-college training was entirely in the form of private tutoring) school experience could be classified under one of the following descriptions:

1) All schooling including college as a seeing person,

2) All pre-college schooling as a seeing person but blind during all or most of college,

3) Early schooling as a seeing person, lost vision but continued in regular public school classes,

4) Early schooling in integrated public school classes with the interviewee either seeing or a person with partial vision at that time; transferred to residential school for the blind with increasing loss of vision and had at least two years in that school before college,

5) Visually handicapped throughout schooling (although often not "blind") but all schooling in integrated public school classes,

6) Residential school for elementary years, integrated public high school for secondary school,

7) Residential school for all but one year before college, this year being either the senior year of high school or a post-graduate year between high school and college,

8) Residential school throughout all pre-college years with no public school experience,

9) Several changes between public and residential schools so that no clear pattern is evident.

Figure 8, based on Table 10 shows the distribution of school experience in terms of the above classifications. As a matter of fact, rather small numbers fall into classifications 2, 3, 6, and 9. When the experience of women is compared with that of men, two major differences

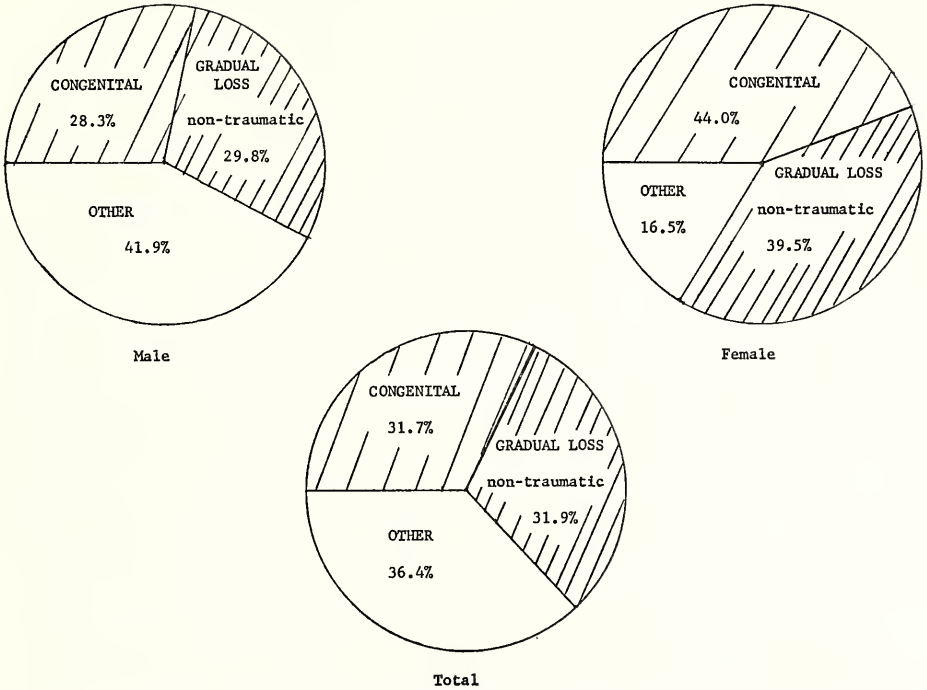


FIGURE 7. Cause of blindness, for men, women, and the total group.

appear. A very much larger percentage of the men had all of their pre-college schooling as seeing persons. Again we have here the influence of the large numbers of men who lost their vision in the War or in other traumatic experiences in the late teens or in the twenties. The significance of this difference is evident in a T of 3.4 (0.1% level of confidence).

Also, a very much larger percentage of women had all or most of

Nature of Schooling	Male	Female	Total
All schooling, including college as a seeing person	21.6%	16.5%	20.5%
All pre-college schooling as a seeing person but blind during all or most of college	14.9%	3.3%	12.5%
Early schooling as a seeing person, lost vision but continued in public school classes	4.5%	2.2%	3.9%
Early schooling as seeing person, transferred to residential school for the blind with visual loss	12.5%	13.2%	12.7%
Visually handicapped throughout school (although often not "blind") but all in integrated public schools	10.8%	20.8%	12.8%
Residential school for elementary years, integrated public high school for secondary school	6.7%	3.3%	6.0%
Residential school for all but one year before college, either senior year or post-graduate year	3.5%	2.2%	3.2%
Residential school throughout all pre-college years with no public school experience	19.8%	35.2%	23.0%
Several changes between public and residential schools	5.4%	3.3%	5.1%

FIGURE 8. Nature of schooling.

their secondary school training in residential schools; 61.5% of the women fall into this category while only 35.9% of the men are so classified. For this difference a T of 4.4 shows significance at the 0.1% level of confidence.

In all probability the two facts above are inter-related. That is, we have no reason to suppose that boys are less frequently sent to residential schools than are girls when the degree of visual loss is the same and occurs at an early age for both. As a matter of fact, in terms of

percentages, approximately twice as many girls as boys had all of their schooling in public school classes despite the fact that, throughout their schooling, they've had at least a partial visual handicap. I would, therefore, conclude that to a large extent the lower percentage of boys with residential school experience is merely the result of the higher percentage of boys who suffered visual loss after the secondary school age. Nevertheless, regardless of these causal relationships, the fact remains that the residential schools have had a part in the preparation of a significantly smaller percentage of the men than of the women in our group.

Since in the counseling relationship the question is often raised with regard to what is a desirable size or type of college for a blind person to attend, we were quite interested in the experience of our interviewees on this point. For purposes of classification of this experience, the following sub-divisions have been used:

1) Large university, co-educational,
2) Medium university, co-educational,
3) Large college, co-educational,
4) Medium college, co-educational,
5) Small college, co-educational,
6) Large college, not co-educational,
7) Medium college, not co-educational,
8) Small college, not co-educational.

It will be readily understood that in a number of cases there are transfers from one type of college to another. Under these circumstances, the individual is classified as attending the type of college which he attended for the largest number of years or, when the number of years was evenly divided, the latter two college years. In general, this classification applies to the undergraduate years. In some cases graduate school was in a smiliar size and type of university but where there was a difference the present classification applies only to the undergraduate years. It will also be readily understoood that those who attended college as seeing persons are not included in this tabulation; for them, the size of college is not an applicable fact in the same sense.

On referring to Table 11 it is immediately evident that men in our group had a greater preference for the large universities and colleges than did the women. Nearly 42% of the men attended such institutions while only 31% of the women did so. However, a T of 2.0 indicates that this difference is barely at the edge of the .05% confidence level as far as significance is concerned, i.e. it is of questionable significance. Although showing a preference for small colleges, women in our group did not show a preference for women's colleges since 27.4% attended small co-educational colleges. While this trend towards the small college may be somewhat intensified in our group by blindness, the basic pattern does not differ materially from that of

seeing students since a larger percentage of men prefer the large universities regardless of the visual problem.

Both the men and the women in our group have, in consistently large numbers, gone on to professional training beyond the basic four years of college. This is true for 64.8% of the women and for 69.1% of the men. However, a very much larger percentage of the women have stopped with the master's degree, only 3.3% having the doctorate, whereas 31.3% of the men have either doctoral or law degrees, and in some cases both. On the other end of the educational scale a very small number of both men and women have less than complete college education. These are all in the business or semi-professional areas where college graduation is not a requirement, and in several cases their success is clearly based upon specialized talent, for example, in music.

It is interesting to note that when the information for men and women is made into a composite for the entire group (See Table 12) almost exactly one-quarter of the entire group falls into the category of college graduation and no further training, one-quarter into the category of having achieved a master's degree in addition to college, and one-quarter into the group which achieved a doctoral or law degree. An additional 18% went beyond the first four years of college, but did not achieve the master's degree. However, in some cases, these were persons who were still working on their advanced degrees at the time of the interview. It therefore seems fair to say that in the end more than half of our interviewees will have achieved advanced degrees.

4. *Professional Choice and Experience*

As we planned the analysis of this material and assigned a numerical code for purposes of data processing, it seemed to us likely that counseling would come from the following sources:

1) State rehabilitation agency or agency for the blind
2) Veterans Administration
3) Private agency
4) School for the seeing (client blind at the time)
5) School for the blind
6) College
7) Friends or relatives
8) Other professional people as physician, minister, etc.
9) Another person in the field of professional choice

Since seventy-three of our clients, although visually handicapped or totally blind at the time, attended only public schools before college, we were startled upon the analysis of this aspect of our data to find that not one of them mentioned having received any counseling from the public schools. We considered eliminating this category from Table 13 but decided to allow it to stand dramatizing the lack of

service which has, at least in the past, been offered to the blind child in the public schools.

As shown in Figure 9, the most noteworthy difference between the men and women lies in the greater percentage of women counseled by public agencies. More than half of the women (56.0%) indicate this source of guidance and help; even if we include Veterans Administra-

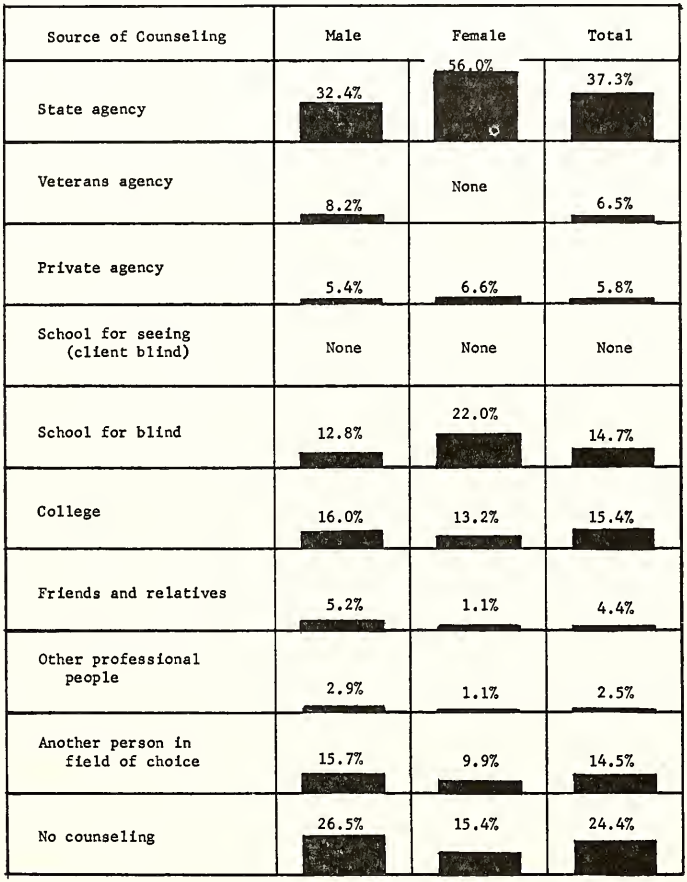


FIGURE 9. Source of counseling.

tion or Armed Services as public agencies, only 39.4% of the men mentioned them as counselors (T—2.6). If we counted only the public rehabilitation agencies and agencies for the blind, only 31.2% of the men credit them with assistance. Both of these differences are significant at least at the 1% level of confidence.

Below the level of significance, but showing some trend, the women are more frequently counseled by schools for the blind which is the

natural result of the fact that more of them attended these schools. Also, a larger percentage of the men report no counseling, perhaps as a result of the fact that more of them were already established in professional work before visual loss. In all other categories, differences between the men and the women in source of counseling are extremely small.

In view of the great concern about placement which colors all of our planning for the future of blind clients Table 14 provides some very interesting information about these well-trained professionals. In this tabulation we have attempted to show the number of months or, for the higher intervals, the number of years between the individual's completion of preparation for his profession and his actively en-

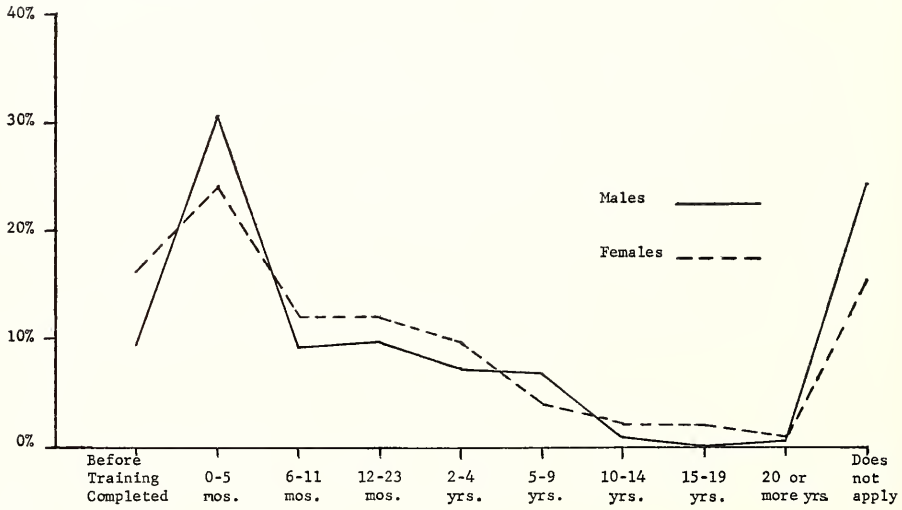


FIGURE 10. Years between graduation and entering profession.

tering upon that profession. In some cases, this is the number of years between receiving the Bachelor's Degree and employment in his field. However, where a graduate degree is clearly regarded as essential (for example, in law) the time has been calculated from the receiving of the required graduate degree to active application of this training in his profession.

In Figure 10, based on Table 14, we see that approximately 11% of the group had already made their professional connections before completing the required degree. Another 30% became established in their professions within the first five months, in many cases sometime during the Summer following completion of college work. For another 20% the wait for placement stretched out during another year. However, it is heartening to note that 61.3% of this group felt established

in professional work of their choice within two years following completion of the training necessary for this. In some of these cases, continued graduate work was being done and in other cases useful related experience was being gained during this time.

This would seem to be a rather encouraging finding and probably not materially different from what one would get from studying the work histories of persons of normal vision. We know of no specific study giving comparable figures but the experience of anyone in placement and guidance certainly is that not every seeing graduate immediately finds his place in his chosen profession. On the other hand, in regarding these figures with pleasure, perhaps surprised pleasure, we must keep in mind that we do not have any representation in this study of those blind individuals who, following college and perhaps following graduate degrees, never achieved any professional status. A very small number of these may be found in our business group since some of them studied for professions and only reluctantly accepted jobs in the business world. However, there is probably a much larger group of these disappointed persons who must not be overlooked as we happily regard the present figures of success. Moreover even in our own tabulation it will be noted that twenty-nine persons were not placed professonally until at least five years after completion of training, five persons waited from ten to fourteen years, two from fifteen to nineteen years, and three—more than twenty years.

In Table 15 we have attempted the tabulation of the age at which each of our interviewees entered his profession. We are frank to admit that this was a difficult figure at which to arrive since in some cases they were part-time participants in activities of a professional nature even while still in training. This is especially evident in the arts and music where the individual frequently demonstrated his talent by paid employment even when still in college. However, it also somewhat applies to the individual who is currently in a profession commonly regarded as requiring a graduate degree but who was working in the lower echelons of that profession before he got his graduate degree and while he was working for it. In making this tabulation we have used the age at which the individual appeared to regard himself as securely a member of the profession, unquestionably accepted although possibly at lower levels.

It has already been noted that more of the men than of the women of our group sought the highest degrees (doctoral and legal degrees). It is the inevitable result of this longer period in school and college that these men would be later in actually entering their professions. This seems to be the chief factor in the finding reported in Figure 11 to the effect that while 56.9% of the women felt established in their profession by the age of 26, only 43.8% of the men felt this way. This is a mildly significant difference (T equals 2.15 significant at the 5% level) but it seems to have no importance beyond reflecting a longer

period of time required to attain the higher degree. If we make our account from the other end of the distribution, that is, how many entered their professions between the ages of 33 and 45, there is no significant difference between the men and the women.

Only sixty of our interviewees reported experience as seeing people in the profession for which they were interviewed; 11% of the women and 14.6% of the men reported from one to more than fifteen years of such experience. On the other hand, only 42.9% of the women and 23% of the men reported no other work experience. About 11% of both men and women reported what might be regarded as related experience as seeing persons and almost exactly one-third of both

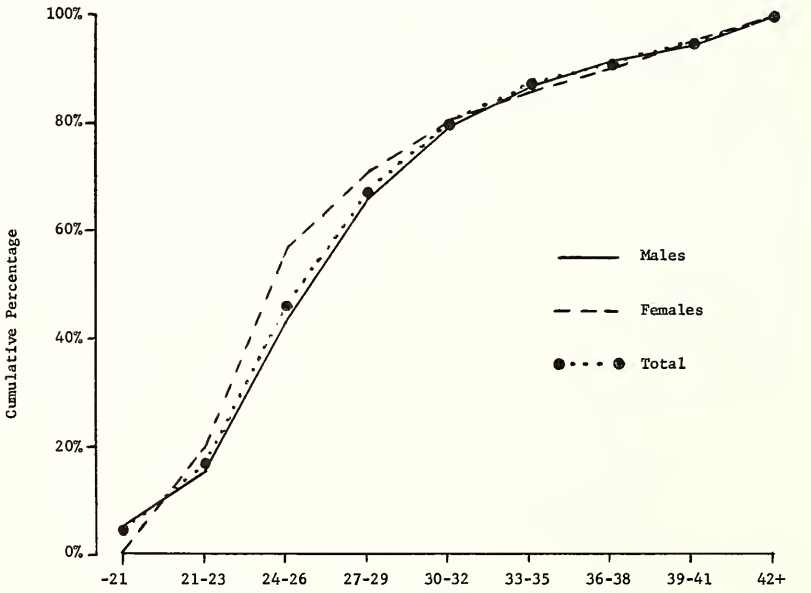


FIGURE 11. Age upon entering profession.

men and women reported related experience as blind persons. In addition, 17.6% of the women and 37.0% of the men reported unrelated experience either as seeing or as blind persons. These figures suggest that it may be easier for blind men than for blind women to obtain employment for which they do not appear to have direct academic preparation. However, this may merely reflect a number of part-time, summer, and similar casual jobs held while working for higher degrees. It will be recalled that a much larger percent of the women entered employment in their own professions at an age so early that there would have been little time for them to pick up unrelated work experience.

As might be expected from the relatively youthful nature of our

interviewee group, nearly half of them have been in their professions as blind persons for less than ten years. In the case of the women 49.4% and in the case of the men 44.9% have nine or less years of experience. The difference between men and women on this point is quite insignificant. Indeed, as Table 17 shows there is at no point on the experience scale any real difference between the men and the women except that three of the men have over forty years of experience whereas no woman does. This seems to be the natural result of the fact that our oldest interviewees were men. It is obvious that we have within the group a very solid background of many years of experience in doing professional work without the aid of vision. It could reasonably be expected that these people would have a great deal to share with newcomers in the field.

In view of the small number of persons who had had experience in their professions as seeing people Table 18, which shows the total years in the profession, is almost a repetition of Table 17 and shows no significant new relationships.

5. *Other Related Characteristics*

Since mobility and independence in travel are frequently stressed as requirements for advanced training and professional planning at least in an agency setting, we were particularly interested in the amount of travel required by the jobs done by our interviewees. It should be emphasized that the tabulation shown in Table 19 represents the requirements of the job as stated by the interviewee; it does not represent the travel pattern followed by the interviewee for his own pleasure. Travel is described under the following headings:

1) None—office in the home
2) To and from office or work place only
3) Occasional travel in own area
4) Frequent travel in own area
5) Occasional travel in distant but familiar areas
6) Frequent travel in distant but familiar areas
7) Occasional distant travel in unfamiliar areas
8) Frequent distant travel in unfamiliar areas

In categorizing responses in the above way, we have in each case implied that the individual does, to whatever extent may be required, all of the kinds of travel described in the categories above that in which he was counted. By this we mean that if an individual has been described as doing occasional travel in distant but familiar areas, it is implied that as necessary he also would do occasional or frequent travel in his own area. Similarly if he is described as doing frequent distant travel in unfamiliar areas it is also assumed that he would as necessary travel in his own and familiar areas.

Figure 12 (based on Table 19) shows that travel outside their own area was much more characteristic of men than of women, a

contrast between 40% and 22%. This, as indicated by a T of 3.6, is a difference significant at the 0.1% level. Similarly, at the other end of the scale, 41.7% of the women are either employed in their own homes or travel only to and from their work place; this is contrasted with only 21.2% of the men who thus described their travel habits.

We do not believe that on the basis of these statistics one should leap to the conclusion that men are generally better travelers than are women. It does, however, appear that men are more likely to go into the kinds of jobs which require extensive travel, or more likely to be supervisors, field representatives, etc.

As for their mode of travel, this was tabulated under the following headings:

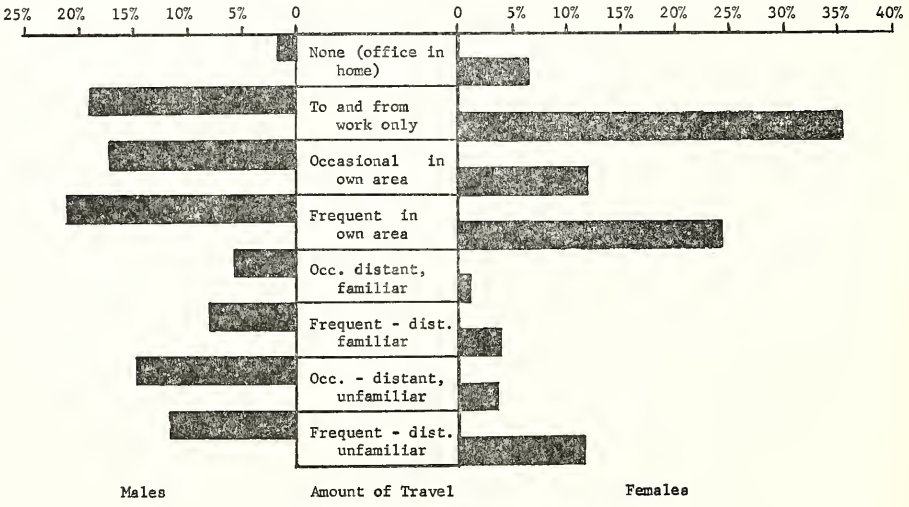

25% 20% 15% 10% 5% 0
0 5% 10% 15% 20% 25% 30% 35% 40%
None (office in home)
To and from work only
Occasional in own area
Frequent in own area
Occ. distant, familiar
Frequent - dist. familiar
Occ. - distant, unfamiliar
Frequent - dist. unfamiliar
Males
Amount of Travel
Females

FIGURE 12. Amount of travel.

1) Travel vision; no aids at any time,
2) Travel vision; cane in unfamiliar area,
3) Travel vision; guide in unfamiliar area,
4) Cane in all areas,
5) Cane in familiar; guide in unfamiliar,
6) Guide dog in familiar; guide in unfamiliar,
7) Guide dog in all areas,
8) Guide anywhere outside home and work area,
9) Blind but no aid in familiar, guide in unfamiliar.

Since there is frequent discussion about the feelings of women concerning the use of a cane, we were interested to find that 26.4% of our women indicated such use frequently. However, it is true that 41% of the men claimed frequent use of the cane, a difference which

with a T of 2.77 is significant at the 1% level of confidence. In terms of percentages the women show a greater preference for use of a guide dog and also a slightly larger percentage of them depend upon some useful travel vision. Despite these differences, the major impression left by Figure 13, based on Table 20, is that at least among our interviewees travel habits of men and women do not differ greatly. It may be of interest to note that the percentage of cane users in our total group and in the Adjustment Study group is almost identical—40%. However, the percentage of guide dog users in the present study is more than twice that in the Adjustment Study.

Responses concerning the use of braille were categorized under the following headings:

0) None

1) Occasional; very little use in work,

2) Reads for business or pleasure, no significant use for notes, etc.

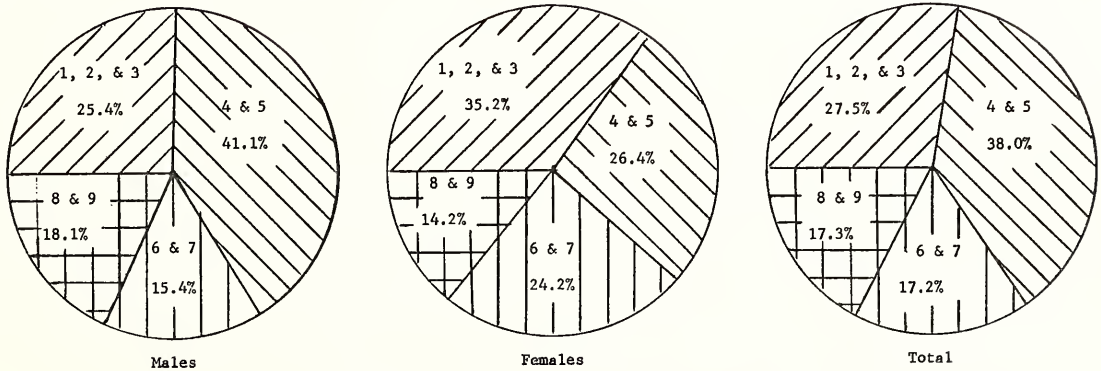
3) Reads, uses constantly for notes and reference material, but no files in braille,

4) Reads, makes frequent notes, has files in braille, regards as essential to job,

5) Writes in braille, teaches braille, very facile with it

As indicated by Figure 14 (Table 21) 71% of the women make extensive use of braille while this could be said of 58% of the men (T equals 2.4, significant at the 5% level). To some extent this finding seems to be a by-product of the fact that twelve of the women are home teachers whereas only two of the men are, and home teachers were automatically placed in the fifth category, the highest level of use of braille, because of the fact that they taught it. Many of the more interesting and unusual ways of using braille, including very complex filing systems, specialized note-taking procedures, labeling of parts and equipment, etc. characterized the men far more than the women. On the whole, the women tended to use their braille in highly standardized ways largely associated with teaching or rather routine notes such as might be found in the files of a social service worker. Perhaps the most significant aspect of the analysis of use of braille is the fact that in 61% of the cases, braille is used to a major extent in the pursuit of the profession and the interviewee regards it as essential. It should of course also be noted that in a very large number of those cases where no use of braille is reported the individual retains sufficient vision to use some form of ink-print, grease pencil, or similar method of keeping his records. When this is taken into consideration, it is safe to say that less than 20% of our interviewees found it possible to handle their professional responsibilities without some effective form of record-keeping, whether this was pencil, ink, or braille.

A variety of other aids were used by members of this group in accomplishing their professional work. Some of these were quite



1) Travel vision; no aids at any time,
2) Travel vision; cane in unfamiliar area,
3) Travel vision; guide in unfamiliar area,
4) Cane in all areas,
5) Cane in familiar; guide in unfamiliar,
6) Guide dog in familiar; guide in unfamiliar,
7) Guide dog in all areas,
8) Guide anywhere outside home and work area,
9) Blind but no aid in familiar, guide in unfamiliar.

FIGURE 13. Mode of travel

complex and would be useful only in highly specialized work. We therefore categorized these under the following headings:

1) Non-technical aids (such as the signature guides)
2) Recording and dictating equipment
3) Technical aids available through standard sources (as the raised line pad)
4) Technical aids devised for or by the individual
5) Calculators with braille notation or similar special adjustment so that they could be used without vision
6) Visual aids.

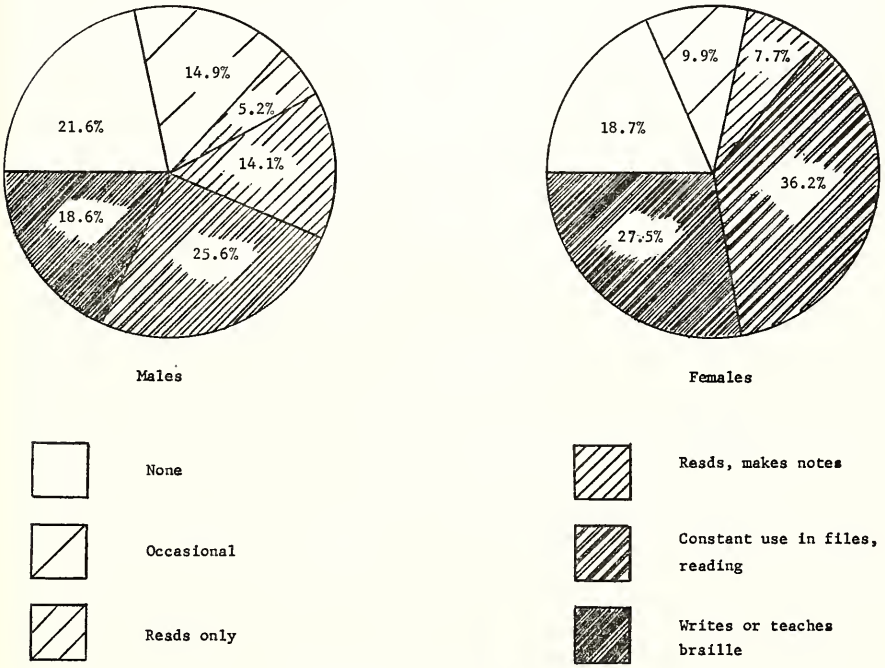


FIGURE 14. Use of braille.

As shown by Table 22, much the favorite source of assistance among both men and women was some form of recording equipment, usually the tape recorder but in some cases, discs or dictaphone type belts which might be preferred because they are more readily filed. Approximately 41% of the women and 48% of the men used this type of material. In general, there are no significant differences between the men and the women in their preference for and use of the various "gadgets." Those in home teaching most frequently refer to a standard kit of material with which they acquaint their clients.

We were especially interested in learning the amount and nature

of assistance required by our interviewees as a result of their lack of vision. In some cases it was a little difficult for them to answer the question exactly because they were in positions where it was natural to have secretarial assistance or where by the nature of their supervisory relationship much of the work of the department would be carried out by others. In these cases they were inclined to feel that the only special help they had lay in certain reading and record-keeping activities. It will be noted from Figure 15, based on Table 23, that such services are the ones most frequently named by both men and women. Approximately 63% of our total group have at least some

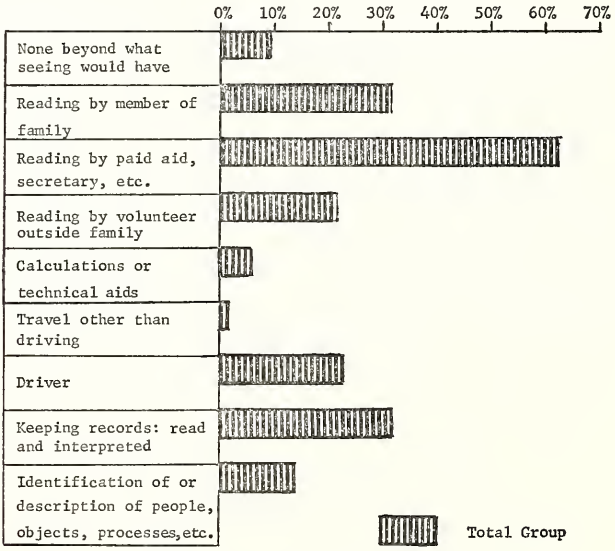


FIGURE 15. Assistance on the job.

reading done by secretaries or other paid assistants within the job setting. This type of service is used almost twice as much by men as by women largely because of the very much greater percentage of the men in jobs that involve having a secretary or in work where paid assistants are a natural part of the job pattern. Thirty-one percent of the interviewees use wives and other family members as readers, taking some of their work home in order to do this. Again, twice as many men do this as women, but this is a natural effect of the fact that so many of our women are single persons and simply do not have the same family resources to which to turn. Only 22% of the group depend even in part upon volunteer readers. Approximately one-third of both men and women depend upon others for keeping records and for the reading and interpretation of records. This is inevitable in a work setting where the majority of records are in

written or type-written form and where it would be impossible for the blind person to maintain a full set of braille records paralleling those in print. Only a very small number, 5%, required calculations or making of graphs, etc. to be done by others. A still smaller percentage depend upon a guide in traveling. However, roughly a quarter of the group use drivers at least at times. It is also interesting to note that approximately 14% of the group must in some phase of their work depend upon others for the description of people, objects, processes, colors, patterns, etc.

Analysis of the membership and leadership of our interviewees in various groups (shown in Table 24) indicates that these relationships can be described as concerned with professional groups, groups for blind people, and other community groups. Less than 10% of our group reported none of these and apparently had no relationship to any group. On the other hand although 51.6% report membership in professional groups, a number admit that they participate very little beyond paying their dues. For them the chief value received from group membership seems to be the fact that they receive the official publications of their profession and occasionally they may get to a convention. For 20% however the professional group relationship has proven challenging and they have taken their places among the leaders. One suspects from their interests that in time many of our younger interviewees will be added to this number; only their rather recent entrance into their fields of work keeps them among the followers rather than among the leaders.

Approximately one-third of those interviewed belong to at least one group specifically oriented toward blind people while 40% take part in local community groups of various kinds. Among these latter, church and service groups predominate.

As Table 24 shows there are no significant differences between the men and the women with regard to group activity except that, in all types of groups, the men are more likely to hold offices and therefore to be counted as group leaders. Slightly larger percentages of men than of women participate in professional and community groups while a slightly larger percentage of women participate in groups for blind persons, but these differences are not statistically significant.

Our interviewees were asked whether any health problem other than blindness troubled them or had played a part in their vocational adjustment. In 85.7% of the cases, they said, "No," with this true a bit more frequently for the women than for the men. The health problems mentioned scatter widely but, as might be expected, diabetes was mentioned most frequently, while some degree of hearing loss was second in frequency.

CHAPTER II

AGE, MARITAL STATUS, AND PLACE OF RESIDENCE RELATED TO OTHER CHARACTERISTICS

The remainder of this report will consist chiefly of studies of the inter-relationships between the descriptive characteristics defined in Chapter I, plus relationships between these characteristics and certain problems and attitudes indicated by the interviewees.

It is inevitable that some of this data will merely confirm relationships often observed by those who work with blind people. It would be a sad commentary upon our awareness of our clients and their problems if this were not so. In many cases, however, this data will offer the first *measure* of these familiar observations and a measure can sometimes have values lacked by a casual observation, no matter how accurate the latter is.

In other cases, we believe that relationships may be newly defined by this data; while in still other cases the absence, for our group at least, of relationships that are sometimes assumed may be of equal importance.

1. *Age at the Time of the Interview*

a) *Marital status.* We find no relationship between the age of our interviewees and their marital status. Among the men where, as you will recall from Chapter I, an overwhelming majority are married, those under 35 show the highest proportion of single individuals. However, this seems to be the natural effect of their relative youth and the fact that they may not yet feel well enough established in their professions to support a family. Some of them are still attending graduate school along with their professional work. I am sure we would find these facts paralleled in the general population.

Among the women, where you will recall that the majority are single, there appear to be no relationships whatever with age.

b) *Place of residence.* Similarly, there appears to be no relationship between the age of our interviewees and their place of residence. Although we have no exact data on this point, it is our impression that a very large number of our interviewees had been brought to their current homes by their work. Like seeing people—or perhaps to an even greater extent than seeing people—they have moved to the place which offered the best job opportunity. When we started upon this

study we thought we might find that most of the younger people had been drawn to the large cities; this is not supported by the data.

c) *Amount of vision.* We also find no relationship between age and amount of vision. Naturally, many interviewees spoke of gradually worsening vision as they grew older, but we do not find a greater percentage of totally blind persons in the older age groups.

d) *Cause of blindness.* Here there are, of course, relationships but they seem merely to reflect the fact that certain kinds of eye problems are characteristic of certain ages. We believe that these findings would be similar among blind persons in any occupations and in no way represent a special characteristic of the professional group.

The congenitally blind dominate in the younger age groups. Although they make up only 31% of the total number of interviewees,

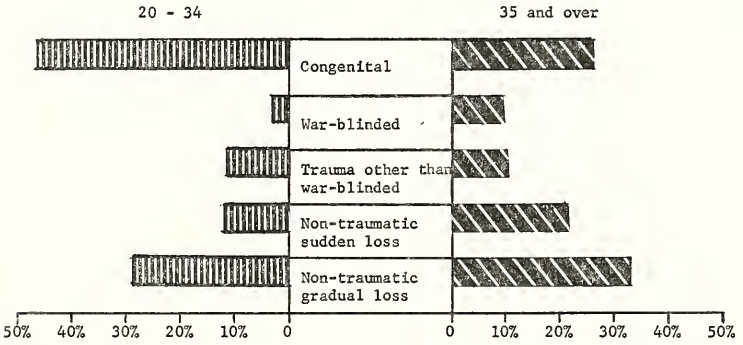


FIGURE 16. Difference in cause of blindness in younger and older interviewees.

they make up 58% of those under 30 years of age, 46% of those under 35. (See Figure 16) The war-blinded appear chiefly among men between 35 and 44 years of age but for all other traumatic loss of vision, the figures scatter by chance through all ages. Persons whose blindness results from non-traumatic causes make up 49% of our total group, but they form 72% of those 50 years of age and over.

e) *Nature of schooling.* In Chapter I we defined nine patterns which could be used to describe the schooling of our interviewees. Three of these seem oriented toward keeping the visually handicapped student in regular school classes:

1) Early schooling as a seeing person, lost vision but continued in public school

2) Visually handicapped throughout schooling but all in public schools

3) Residential school for elementary, public for high school years

Three others seem oriented toward referring the visually handicapped student to a residential school and having him remain there through secondary school:

4) Early schooling integrated while the student had at least partial vision, transferred to residential school for at least two years, usually for much more, when vision decreased

5) Residential school for all but one year before college (either the senior or a post-graduate year)

6) Residential school throughout pre-college training, no public school

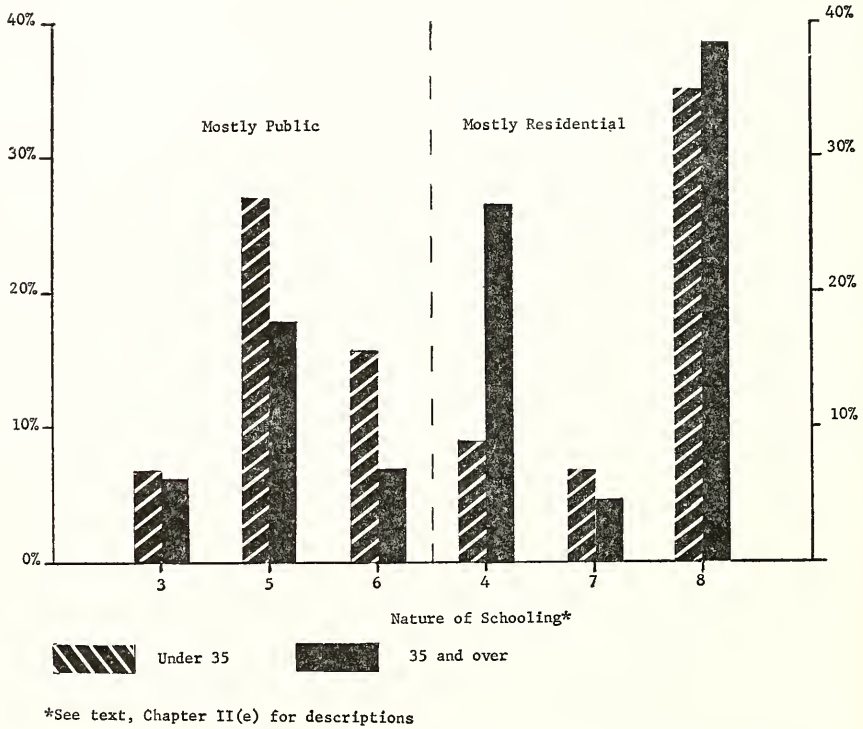


FIGURE 17. Nature of schooling related to age at the time of interview.

Our data appears to reflect a definite trend toward retaining the visually handicapped student in the public or integrated classes in more recent years. Of those blind in their pre-college years and under the age of 35, 49.4% had schooling described by one of the first set of three descriptions above, while for those blind in their pre-college years and 35 or over, only 30.7% had such predominantly integrated schooling. (See Figure 17) The T for the difference between these percentages is exactly 3.0, significant at the 0.1% confidence level.

This means that there is no reasonable doubt that our younger interviewees grew up in a society where attitudes toward the education of the blind child had changed significantly from those surround-

ing the older interviewees. We do not mean that the change took place everywhere, nor that it took place suddenly, nor that it took place at the same date in all those places where it did change. But in the past fifteen to twenty-five years there has developed a significant trend toward having the blind student remain in regular schools with various forms of help and special kinds of class organization within those schools, and the products of this kind of education make up about half of our younger professional group.

f) *Type and size of college.* We wondered whether this might mean that the younger interviewees would prefer a different kind of college setting. One might suppose, for example, that the graduate of the small, relatively protected residential school would prefer to attend a small college while the public school graduate might feel little concern at plunging into the complexities of life on a university campus.

For such a supposition, we find no support in our data. At all age levels, about half of those blind during college attended large colleges and universities, about half small colleges.

g) *Amount of education.* Nor is there any significant difference in the amount of education of the older and younger interviewees. Of those over 40, 33% seem to have stopped their education with completion of the four standard years of college, while of course 67% have gone beyond this. For those under 40, exactly 30% have completed only the basic four years of college while 70% have gone beyond. We should, however, keep in mind that it is more likely that the younger men and women will return to graduate school than it is that those already over forty will do so. Our guess is that a study ten or fifteen years from now might show that those born after 1920 did, in the end, acquire a significantly higher number of advanced degrees.

We might reasonably credit much of this to the more generous provision of monies to support higher education through state and federal grants and to the fact that this younger group includes so many veterans for whom higher education was made attractive. However, I think we would find a very similar trend among young professional people with normal vision. In many fields, the standards have been raised rapidly in the past twenty to thirty years; where mere graduation from college once sufficed, there is now a demand for at least the master's degree or, often, the doctorate. The recent study of public school teachers[1] indicates that more than a third of those holding the master's degree are in the age group from 26 to 35 years, while each older age group shows a significantly lower percentage with advanced degrees.

In fact, of course, our interviewees probably reflect both of these trends: provisions for advanced degrees are more generous, and our

[1] The American Public-School Teacher, 1960-61. Research Monograph 1963-M2, National Education Association.

society demands such degrees of all who would be known as "professional."

h) *Problems in school.* As our interviewees discussed the pattern of their educational background before college, those who had been blind at that time were asked to describe any problem they then had in school. Although expressed in various ways, these problems could readily be classified as:

1) Social—reflecting difficulties in relationships with peers or, in a few cases, with school staff but not related to academic attainment; in many cases these were complaints of lack of adequate social opportunity or lack of social experiences which would later enable them to adjust in a sighted world.

2) Academic—difficulties in mastering academic content, getting reading or library work done, producing required reports, participating in laboratory experiences, etc.

3) Related to weaknesses in skills—chiefly these were problems with braille, typing, or handling mathematical calculations—the tools for doing academic work.

We have eliminated from consideration in this section the 149 people who had no visual difficulty, or who functioned as seeing people, in the pre-college years. Of those who remain, 34% were, at the time of the interview, under 35 years of age; 47.3% were under 40 years of age. It is interesting to note that 44.3% of the reports of social problems come from the 34% who were under 35, while 60.8% of the reports of social problems come from the 47% who were under 40. On the other hand, only 30.4% of the reports of academic and skill problems come from those under the age of 35, only 39.3% from those under 40.

A number of factors might contribute to these findings. Since the younger group includes a larger percentage with integrated or non-residential schooling, one must wonder whether these public school students complained of social problems or whether all of the complaints came from the small number in residential schools; this will be analyzed in Chapter IV. Perhaps these younger people merely grew up in a society where all youth expected more social freedom and more social opportunity; perhaps one would hear similar complaints from students with normal vision. Is social freedom more emphasized in recent years for everyone?

Or perhaps the passage of years has a selective effect, either directly upon the memory or, less directly, upon one's perception of what is important. Does the suitability of social contacts and the development of social graces dominate our thinking when we are under forty and are we inclined to forget this as we grow older, whether the experiences were good or bad? As we move into the most seriously competitive professional years, usually after forty, does the slightest weakness in academic training seem a greater threat to our success?

i) *Problems in college.* In the same way, interviewees who were blind during their college years, were asked to indicate problems encountered in college. Except for a single report of weakness in a skill, these problems rather clearly fell into the social or academic categories. Perhaps specific complaints about the skills do not appear here because they were blamed on lack of adequate training in the pre-college years and were therefore counted at that level. There was common agreement, among those interviewed, that all these skills should have been thoroughly acquired *before* college, not during it.

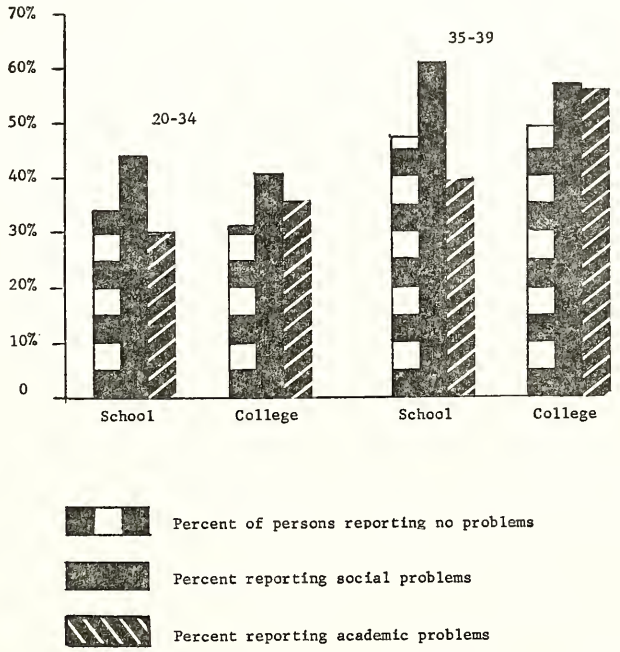


FIGURE 18. Relationship between school and college problems and age of interviewees.

Again we shall consider only those who were blind while in college (excluding 92 who had normal vision at that time). Of these, 32% were under 35 when interviewed and they report roughly 42% of the social problems in college, 35% of the academic problems. Or, if we take 40 years as our dividing line, 49% of the persons interviewed reported 57% of the social problems, 55% of the academic problems. (See Figure 18) The major difference from the preceding section lies in the fact that, for all ages, a very much larger number of academic problems was reported. In fact, only 56 reported academic and skill problems in the pre-college years, while 170 so reported for college.

j) *Source of counseling.* In this area, our data rather dramatically

points up the growth in counseling services in the past several decades. For those under 45 years of age, 44.3% received counseling from public or private agencies, 31% from schools and colleges; for those 45 and over, only 22.5% received counseling from public and private agencies, only 17% from schools or colleges. (See Figure 19) If we draw the line at the age of forty, only slightly higher percentages received service in the older group and in many cases these were people whose visual loss occurred only rather recently. Professional counseling from any source is rarely reported before 1940.

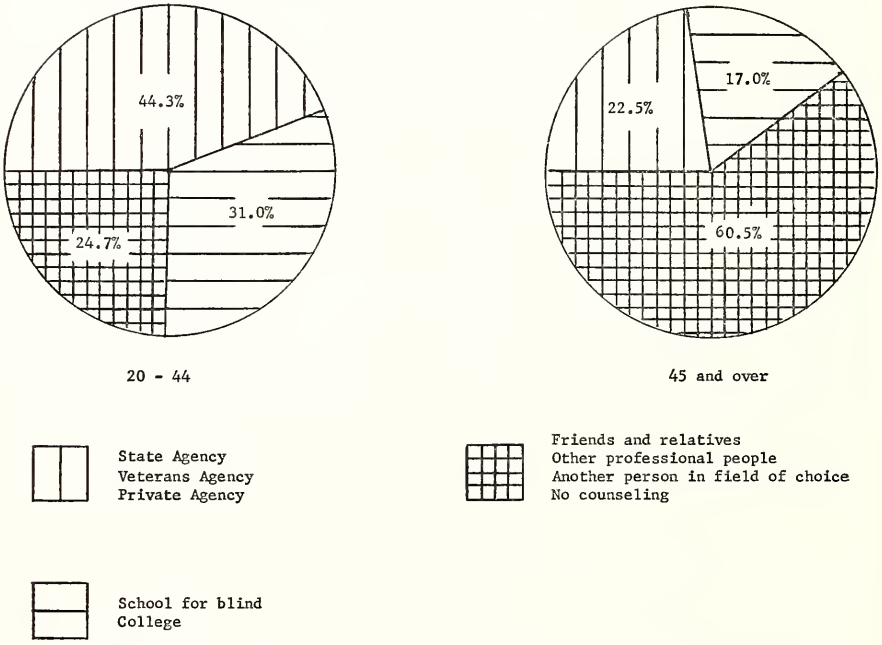


FIGURE 19. Sources of counseling for younger and older interviewees.

k) *Years between graduation and entering profession.* One of the measures of the effectiveness of a counseling service might be the length of time required for the counselee to enter his chosen profession. Among our older interviewees there were frequent reports of long delays; in ten cases, ten or more years passed between the completion of training and final admission to the chosen career. However, there were also many in the older group who seem to have had no difficulty in becoming established rather quickly. In evaluating this area, one must also keep in mind the fact that we interviewed only those who had succeeded in finding a place in their profession or chosen business field; we do not know how many of those who graduated college with them may still be awaiting their first job opportunity. Those under 35,

or certainly those under 30, could not possibly have waited ten years for an opportunity and still be included in the interview group; less than that amount of time has passed since they finished college.

With these realistic considerations in mind, we may nevertheless find some satisfaction in the following: Of those under forty, 72.3% had entered their professions within less than a year following completion of the accepted amount of training for that profession; for those forty or over, only 57.8% had done this. For this difference, T is 2.8, significant at the 1% level of confidence.

One might also approach this question by relating the age at the time of interview to the age of entering the profession. Naturally there is a correlation, but for the same reasons it must be regarded as spurious.

l) *Other work experience.* We found no relationship whatever between the age of our interviewees and their history of work experience preceding professional placement. Naturally, there is some weighting in the direction of no other experience for the very young; again, they could not have been included in our study while still in the mid-twenties if they had spent much time in other kinds of work. We were impressed by the number, at all ages, who reported related work experience as blind persons. In many cases there are very natural histories of growth within the profession, not differing from what one would hear from sighted professional workers so the patterns do not seem significantly different for blind workers.

m) *Amount and mode of travel.* Our original hypothesis had been that younger blind people might do more traveling. This might be based on the mere supposition that they could be physically more active, have more energy. Also, one presumes that a larger group of them have had the benefit of modern travel training which would presumably make them more willing to travel independently in unfamiliar places.

This hypothesis is totally unsupported by our data. By about 5% (not statistically significant), those over forty travel more widely than do those under forty. Even though the women travel less widely than do the men, there is still no difference in favor of the younger person. A review of these records leaves the impression of a very active, energetic group with 19 people over the age of 60 reporting wide travel.

Relating the mode of travel to the age of the interviewee also results in no significant findings. Among the women, there is a slightly (but not significantly) greater number who use the cane among those under forty than among those over forty. This is not true among the men where the percentages for the two age groups are almost identical. Possibly among the women we see some effects of the efforts, in recent years, to popularize the cane. The use of a personal guide is pretty much restricted to the older interviewees among both men and women.

n) *Use of braille, gadgets, and assistance on the job.* No significant difference is found in the use of braille at various age levels. Many interviewees at all ages regard it as absolutely essential. Gadgets and personal assistance on the job also seem to appear in relationship to job content, and not at all in relationship to age.

o) *Group activity.* Again drawing a line at the age of forty, we find no difference in the percentage who are members of professional organizations, and no significant difference with regard to membership in community or blind groups, although for the latter two, slightly more of the older group belong. In all cases, and particularly in professional organizations, the percentage with leadership experience favors the group over forty.

Here, again, our interviewees follow the normal pattern—with experience, they move into leadership. Perhaps we should be more surprised that, with all three types of groups, about 13% of those under forty are already standing out above the crowd through some leadership activity. Again we have a picture of an alert and active group of people, not slow to take their places on the basis of ability—not blindness.

2. *Marital Status*

a) *Amount of vision.* One might suppose that individuals who retain some vision, enough to be useful at least in travel, might be more likely to marry. Particularly among women, who are expected to run a home, this might be true. Our data, however, offer no support for this. Only minor differences appear, moving from one vision group to another.

b) *Age of loss of vision.* Those who were born blind, or who lost their vision before the age of ten, seem less likely to marry. When figures for men and women are combined (the difference would be even more marked if calculated for men alone) 60.8% of those who are single lost their vision before they were ten years old, while only 42.4% of those who have married suffered this early loss. This results in a T of 3.8, significant at the 0.1% level of confidence. To put it somewhat differently, among the men, 63.9% of those who lost their vision before they reached the age of ten were married, while 81.4% of those losing their vision after that age married.

c) *Cause of blindness.* Since the group with early visual loss, just discussed in the paragraph above, is heavily weighted with persons whose visual loss is congenital in origin, we also find a marked relationship between marital status and congenital loss as listed under cause of blindness (See Figure 20). Again combining data for men and women, almost exactly half (49.2%) of the congenitally blind have remained single while only 30.7% of those whose visual loss resulted from all other causes have done so. (T—3.7, significant at the 0.1% level) One might guess that the fear of passing on congenital

blindness to their children has kept many of these individuals unmarried but we have no way of knowing that this is true.

The most married group is the war-blinded, with only 12.9% single. Here again one might presume that both psychological and economic factors might favor marriage. Also, for those who lost their vision from any cause later than the teens, a number were already married before they became blind. In a sense these can scarcely be compared with persons whose visual loss occurred before the teens. These are not blind people who married, but married people who became blind.

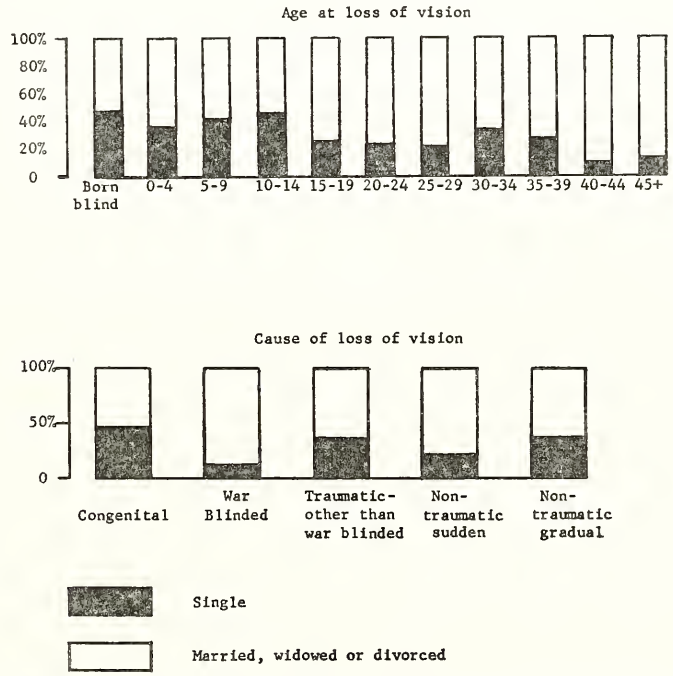


FIGURE: 20. Marital status related to (a) age at loss of vision and (b) cause of loss of vision.

Even when one cannot track down all the possible factors to explain a figure, it may still be provocative. One of these is the finding that those who report sudden loss of vision, from whatever cause, seem much more likely to become married than those who report gradual loss of vision. Both the sudden-loss group and the gradual-loss group include some people for whom the cause of blindness was trauma, including the war-blinded, and some people for whom the cause was not traumatic—glaucoma, cataracts, retinitis pigmentosa, etc. Yet those to whom blindness came suddenly seem to have something in common which has led to marriage for a greater percent—

78.2% compared with 60.5% of those with gradual loss; T is 3.3, significant at the 0.1% level of confidence.

d) *Nature of schooling.* In view of many statements concerning the restricted social opportunity in residential schools, statements that persons who had spent many years at a residential school were socially at a disadvantage, one might suppose that those with many years of residential schooling would be more likely to be among the unmarried group. However, if we again use the division defined in the last section, II (e), there is a difference of only 1% (absolutely insignificant!) in the percentage of married persons in the two groups. One can only conclude that this "restrictive" influence has had no effect upon the probability of becoming married.

Nor is there any relationship between marital status and the type and size of college attended for undergraduate work or the amount of schooling. Among the women, 32% of those who go on for advanced degrees are single, 30% are married; among the men, 54% of both the unmarried and the married groups have advanced degrees.

e) *Problems in school.* Of the 111 persons who reported some type of problem in school, 56 were single, 55 were married; again there is obviously no relationship. However, of the 55 married persons who reported school problems, 89.1% reported social problems, 21.8% academic problems and 16.4% problems related to basic skills. On the other hand, of the 56 unmarried persons who reported school problems, 53.6% reported social problems, 50.0% reported academic problems and 12.5% difficulties related to skills. Or, to put it another way, of the 79 persons who reported having social problems during their school years, 62.0% had married by the time of the interview while only 38.0% were unmarried. Since 39% of the total group are unmarried, the percentages for those who reported social problems are an exact parallel, suggesting no relationship whatever between the reporting of social problems and becoming married.

f) *All other relationships.* We also studied the possible relationship of marital status with all the other characteristics described in Chapter I and found no significant relationships. The years of waiting for a professional opportunity, the age of entering upon the profession, the amount of travel, etc., are neither affected by, nor do they affect, marital status. Among those who are married, there is a slightly greater tendency to become members of professional and community groups, a slightly smaller tendency to join groups for the blind. However, the differences are far from statistically significant.

3. *Place of Residence*

Efforts to relate the place of residence at the time of the interview to most other data proved unrewarding. It is quite logical that this should be true since in many cases, the individual had not lived in the current residence very long. For example, an effort to relate place

of residence to the nature of schooling proves fruitless because the individual lived in a quite different place when attending school. Only two of these relationships seem at all worth discussion.

a) *Mode of travel.* Among the city dwellers, 39.2% use the cane, while it is used by only 30.7% of those in small towns or rural settings. This may suggest a trend but it is not significant statistically (T—1.3). There is no difference at all between the percentage of guide dog users in the two settings, nor between those using human guides.

b) *Group membership.* The city and small town groups show no significant differences in membership in professional and community groups. The city dwellers do, however, belong to organizations for the blind in significantly greater numbers (T—4.3, significant at the 0.1% level). This may, of course, merely mean that those in small or rural communities do not have such specialized groups available.

c) *Amount of vision.* The city dwellers include a slightly higher percentage of those without useful vision than of those with travel vision or better, but a T of 1.7 falls below the significant level. This is worthy of mention because it does not support the hypothesis, sometimes expressed, that totally blind people are more comfortable in small towns where travel is regarded as less complex.

CHAPTER III

VISUAL FACTORS RELATED TO OTHER CHARACTERISTICS

1. *Amount of Vision at Time of Interview*[1]

As was indicated in Chapter I, for purposes of this study, amount of vision was defined in five groups:

A. Totally blind
B. Light perception or projection
C. Travel vision—large objects but no reading of print
D. Reading of some form of print occasionally and with difficulty
E. Reading of some form of print easily, possibly with special lenses

In many cases, the line between groups A and B is of small importance because neither group has any effective use of vision and the problems of the two groups are usually similar. Also, the lines between groups C, D and E often mean little as far as their contacts with the general public are concerned and their problems are often similar. During the following discussion we will therefore usually combine groups A and B, and groups C, D, and E.

a) *Cause of blindness.* For the two groups without useful vision, the cause of blindness scatters without really significant differences: the congenitally blind make up 26.1% of the group, those who suffered some form of traumatic loss make up 19.3%, those who lost their vision suddenly from non-traumatic causes 22.2% and those with gradual loss from non-traumatic causes 32.4%. Those who retain some useful vision differ from that pattern chiefly in the fact that 43.2% attribute their blindness to congenital causes. Only 14.4% lost their vision through trauma, 11.5% through sudden non-traumatic causes and 30.9% lost it gradually from non-traumatic causes (See Figure 21).

The difference in percentages of congenitally blind among those with and those without useful vision is statistically significant (T is 3.5, significant at the 0.1% level of confidence) as is the almost identical difference in percentages blind as a result of either trauma or non-traumatic sudden loss. We have no theory concerning the importance of these observed differences but they do not seem to be a matter of chance. They do, of course, tie in with the facts reported in Chapter I to the effect that women appear in larger percentages than do men among both the congenitally blind and those with some

[1] Also see Chapter II, Section 3(a).

useful vision. In the present cross tabulation of these factors, women make up exactly one-third (compared with 21% to be expected on the basis of chance).

b) *Nature of schooling.* For those who were blind before they completed secondary school, two major patterns of schooling emerge:

1) Oriented toward education along with seeing people—groups 3, 5, and 6 as defined in Chapter I

2) Oriented toward education in residential schools for the blind—groups 4, 7, and 8 in Chapter I

It is probably not surprising to find that among those whose education was oriented toward the residential schools, approximately three times as many fall into the group without useful vision as into the

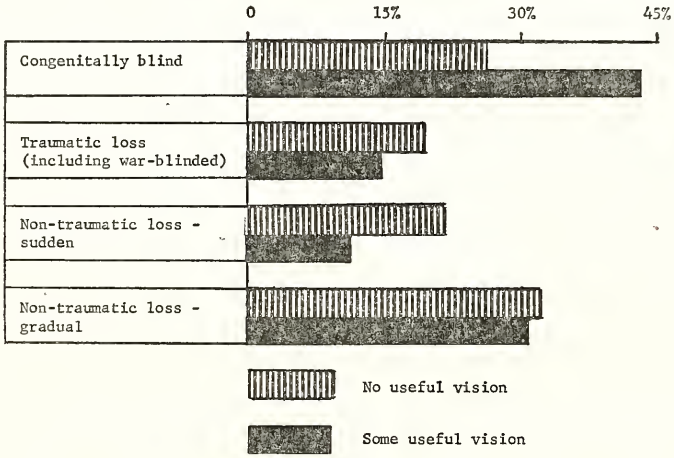


FIGURE 21. Amount of vision related to cause of blindness.

group with some vision; 74% are in vision groups A and B. It may be more surprising to find that 63.1% of those who were educated in public school settings also fall into vision groups A and B. It is of course true that some of these people had more useful vision during their elementary and secondary school years (See Figure 22).

To put it another way, of those who at the time of the interview had no useful vision, 66% were educated largely in residential schools, 34% in regular school classes although regarded as visually handicapped at the time. For those who at the time of the interview had some useful vision, roughly 53% had been educated largely in residential schools, while 47% had been in public school classes. The difference between these percentages yields a T of 2.0, barely at the lowest level of significance. There may be a mild trend toward educating children without useful vision in residential schools, but amount of vision cannot be regarded as a major and significant factor in the choice of educational pattern.

c) *Type and size of college.* Amount of vision seems to have nothing whatever to do with the kind of college attended. All five of the vision groups split almost exactly in half with relation to attending large colleges and universities, or small colleges. The choice of college seems to be made on some quite different bases—as, no doubt, it should be.

d) *Amount of education.* Those without useful vision weight the two ends of the scale measuring amount of education. We have in our study 28 people who never attended college; a few of these are in business where college might not be regarded as necessary but most

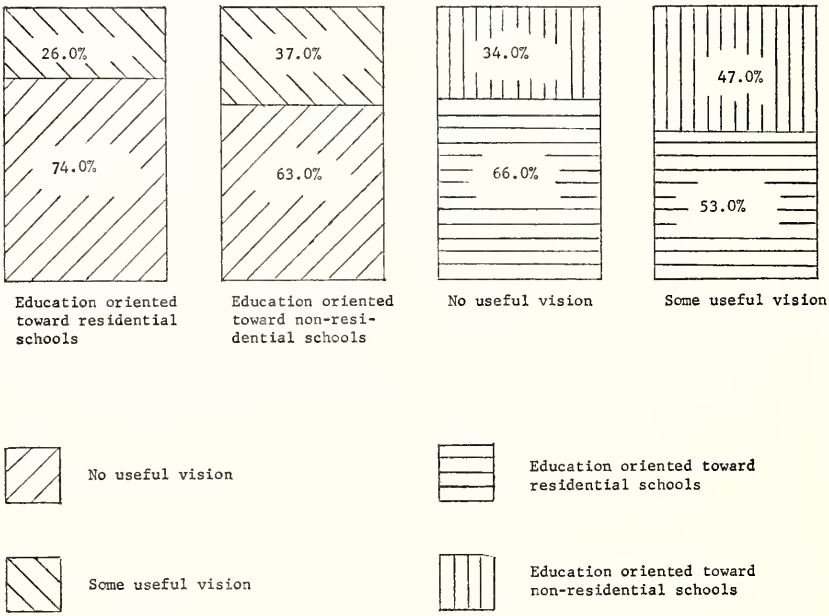


FIGURE 22. Nature of schooling related to amount of vision.

of them are doing truly professional work—musicians, writers, heads of agencies, specialists in electronics. Of these, 24 are without useful vision. We also have 114 persons with at least the doctorate or law degree, and of these six have more than one degree. Approximately 77% of these (88 persons) are without useful vision, while 23% (26 persons) have some reading vision.

Or we might simply divide our total interviewees into two groups which happen, as was noted in Chapter I, to be exact halves: those without any graduate degrees and those with one or more graduate degrees (See Figure 23). Roughly 54% of those without useful vision have graduate degrees while only 41% of those with useful vision went this far in their education (T—2.6, significant at the 1% level of con-

fidence). We can be deceived by these figures if we do not keep in mind the following data from Chapter I: A vastly greater number of men than of women went beyond the master's degree (31.3% of men, 3.3% of women); also a significantly larger percentage of women had useful vision. If we relate amount of vision to amount of education for the men only, we find that 57.2% of those without useful vision have the master's or a higher degree, while this is true for 49% of those with some vision (T—1.4). Or, 35% of the men without useful vision achieved doctoral or law degrees while 25% with useful vision did so. The pattern still favors higher degrees for those with less vision but the T of 1.9 falls just short of significance. What seemed to be a difference related to vision is, then, partially a difference related to sex. This is also true at the lower end of the education scale.

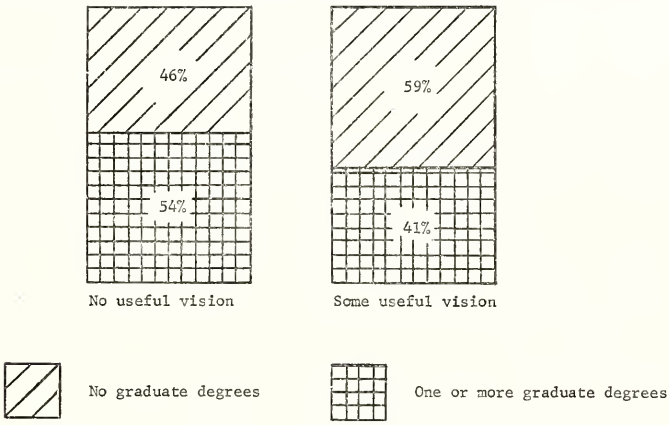


FIGURE 23. Amount of vision related to amount of education.

Of the 28 interviewees who never attended college, 24 are men and 23 of these are without useful vision.

e) *Problems in school.* Here the differences between those with and those without useful vision are not statistically significant but it may be of passing interest to note that those without such vision are consistently slightly favored. They say, in 58.8% of the cases that they had no problems, while 25.6% report social problems, 18.6% problems relating to academic or skills. Of those with useful vision at the time of the interview, 54.7% report no problems, 32.6% report social problems and 22.1% academic or skill problems. It should, of course, be kept in mind that in both groups there are some people who had more vision when in school than at the time of the interview.

f) *Problems in college.* The above already insignificant differences disappear completely at the college level and, at most, four percentage points separate those with and those without useful vision. In view of frequent statements by persons with partial vision to the effect

that the public did not understand their difficulties, one might feel little surprise at their report of social problems. More surprising, however, are the percentages of each vision group reporting academic problems: for those who were totally blind, 38.6%; for those with enough vision to do some reading, 42.3%.

g) *Age upon entering and completing training.* No differences whatever are found between those with and those without useful vision for tabulations of age of entering or age upon completing training essential to the chosen profession. This has particular interest because a considerable percentage of those who graduate from residential schools are older than the typical normally seeing graduate of high school. One can only conclude that those older graduates do not include many who go on to college—or that if a visually handicapped person attends a school for the seeing he may take somewhat more than standard time to get through.

h) *Years between graduation and entering the profession.* Nor does it seem to be significantly more difficult to become placed in one's profession if one has no vision, compared with those having travel or some reading vision. About 63% of those without useful vision were placed within the first year after graduation, while about 70% of those with some vision had become established in that same amount of time. The difference favors those with some vision, but it is not large enough to be regarded as setting a pattern.

Similarly, about 45% of those without useful vision got their start before they were 27 years of age, while about 49% of those with some vision were established by that time. Here we must consider not only the direct factor of vision but the fact, noted above, that the individuals without useful vision tended to go on to more graduate study. While, in making these calculations we attempted to use the amount of education *required* by the profession (the individual might have more), this tendency to get higher degrees has some relevance.

i) *Other work experience.* Here the differences tend to favor those with some helpful vision, but again these differences are not statistically significant. No other work experience is reported by 29.5% of those without, 21.6% of those with useful vision. Conversely, related work experience (obtained while the individual was blind) is reported by 27.5% of those without useful vision, by 33.1% of those with it. If we consider those who had unrelated work experience as blind people, the percentages are almost identical for the two amount-of-vision groups.

j) *Amount and mode of travel.* The two vision groups show very little difference in the amount they habitually travel. About 65% of those without helpful vision rarely travel beyond their locality while this is true for 61% of those with useful vision. Again this data is colored by the fact that the women include a larger percentage with useful vision, while the women tend to travel less widely than do the

men. If we relate amount of travel to amount of vision for the men only we find that about 63% of the men without useful vision are limited travelers, while only 52% of men with useful vision could be so described. T for this difference is only 1.8, not significant, but it is evident that when the women's tendency toward limited travel is eliminated from the data, somewhat more evidence does appear to support a hypothesis that those with useful vision travel more widely.

Mode of travel is, of course, much affected by vision (See Figure 24). Approximately 84.2% of those with some vision rarely or never use any travel aid. Another 3.6% function quite independently in their home and work areas but usually travel beyond these areas only with a seeing guide. Others use the cane either some or most of the time, and four with useful vision have guide dogs.

Of those without useful vision, 51.5% use the cane and 24.1% are guide dog users. About 23% rarely travel without a seeing guide. Five persons claimed that they used no travel aid in familiar places but on long trips, or in going to unfamiliar places, they would travel with a seeing person.

Perhaps the most important aspect of these findings is that fact that those without useful vision seem to get where they want to go in just as large percentages as do those with helpful vision—no matter how they manage it.

k) *Use of braille.* Quite naturally, extensive use of braille is reported chiefly by those without enough vision to read print under any circumstances. However, 12 persons who do have some reading vision, make considerable use of braille, including notes, files, and records. Little or no use of braille is reported by 23.4% of those without useful vision, and by 72% of those with useful vision.

l) *Use of gadgets.* No significant relationships were found between use of various gadgets and aids and amount of vision. Such use appears to depend upon the job content chiefly.

m) *Group membership.* No significant differences are found for the two amount-of-vision groups in either membership or leadership in groups. All these percentages run just a little higher for the group without useful vision, but only by a few percentage points. It is perhaps especially interesting to note that there is just about as great a tendency to join groups for the blind among the partially seeing as among the totally blind.

2. *Age at Loss of Vision*[1]

a) *Nature of schooling.* In some ways the age at which vision is lost necessarily affects the pattern of the individual's schooling. If he does not lose his vision until after he has completed secondary school, it is extremely unlikely he will attend a residential school for the blind,

[1] Also see Chapter II, Section 2(b).

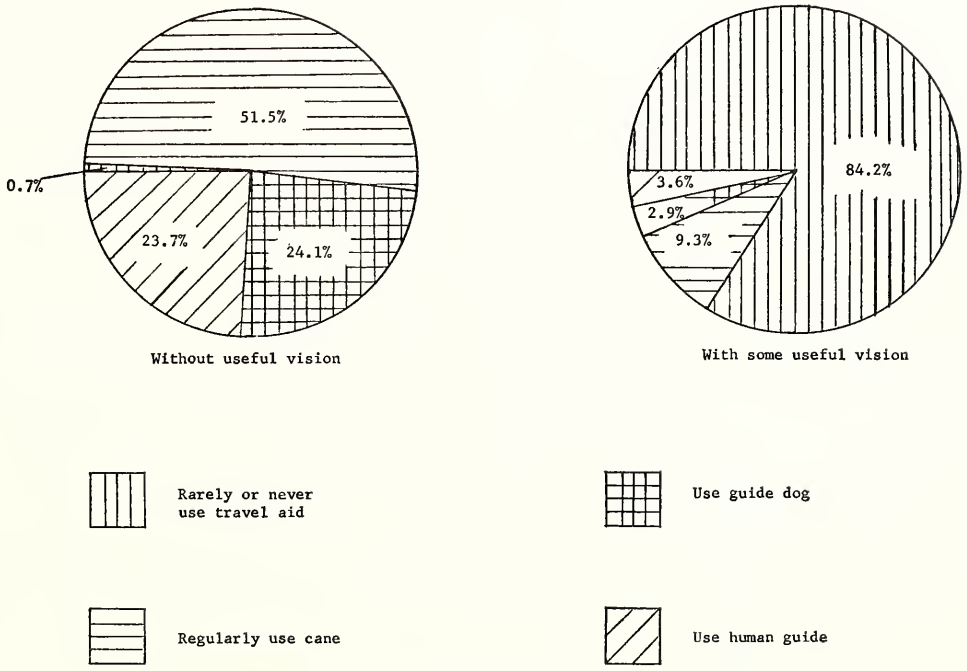


FIGURE 24. Amount of vision related to mode of travel.

unless he goes briefly as a special student to acquire special skills.

One might also suppose that if he did not lose his vision until after he had made a start in regular school, he would be more likely to remain in that school after visual loss. This does not prove to be true. Of those who lost their vision before the age of 5, and who could therefore not have been established students in any school, 35.7% followed the educational pattern defined earlier as oriented toward schools for the seeing, while 64.3% followed the residential school pattern. Of those who lost their vision between the ages of 5 and 19, 36.9% followed the pattern oriented toward the seeing, while the remainder transferred to residential schools. Obviously some factor other than age of visual loss determines this choice.

b) *Problems in school.* Let us compare, here, the 210 individuals who lost their vision before the age of ten with the 68 individuals who lost their vision between the ages of 10 and 19. None of the differences between these two groups, with regard to problems in school, is significant. However, one cannot resist noting the tendencies: Those with early visual loss tend to report social problems in a larger number of cases, while those with later visual loss tend to report academic problems in a larger number of cases.

c) *Job related factors.* Age of visual loss shows no relationship to the number of years between graduation and entering the profession. Naturally, those who lost their vision late in life were already established in professions in which they usually remained. Those who lost their vision in middle life usually had had some career, but often changed to a new one with visual loss. These people were not counted at all in our study of the time lapse between graduation and entering the professional field. For the rest, no differences appeared based on the age at which vision was lost.

Other work experience is affected in the sense that a person who lost his vision in or after his late teens usually had some form of work experience as a seeing person. Some thirty of these were able to build upon that work experience when they became blind, although they were not able to remain in the same positions they had as seeing people. About the same number had, as seeing people, done work which could not be regarded as preparation for their later careers but which did, of course, give them some practical knowledge of the world of work and of the expectations of employers.

Persons whose visual loss dated from the pre-work years naturally obtained all their experience as blind people. When we compare five-year groups up to the age of 19, roughly one-third of each age level proves to have had no experience other than the career about which he was interviewed, one-third had unrelated work experience, and one-third had related work experience preceding the career about which he was interviewed. These proportions seem to establish a firm pattern, unaffected by the age of visual loss.

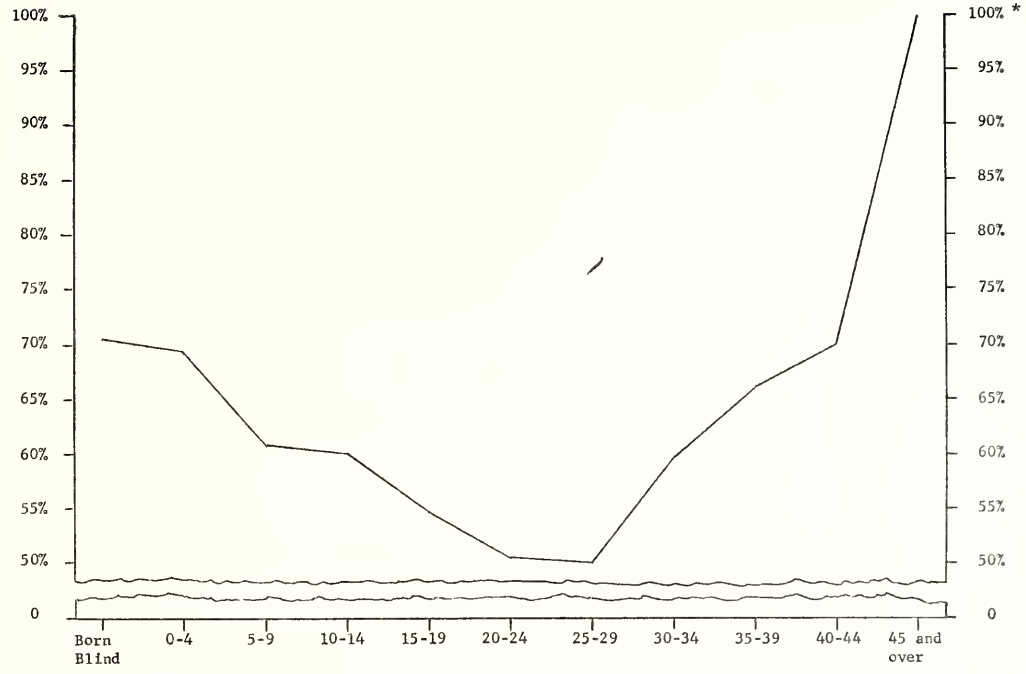
The nature and amount of assistance on the job also seems quite unrelated to the age of visual loss. Reading is the form of help most frequently used by all, and other kinds of help are used as they are required and available.

d) *Travel factors.* If we divide our interviewees into two travel groups—those who do not travel beyond their local area, and those who do travel more or less widely—an interesting pattern appears related to age of visual loss. Of those born blind, 71% fall into the first group which one might describe, for the sake of brevity, as non-travelers. As we move, by five-year intervals, up the age-of-loss distribution, the percentages go down: 69%, 62%, 60%, 55%—until for those who lost their vision between the ages of 25 and 29, exactly half fall into the non-travel group, half into the travel group. Then, as Figure 25 shows, the percentages quickly climb again until all of those who lost their vision beyond the age of 45 fall into the non-travel group. Because so many of the women (who tend as a group to be limited travelers) are congenitally blind, they emphasize the height of this curve at the lower end. However, the general pattern for the curve is the same for both men and women.

Although the N of some of these groups, especially the older groups, is rather small, the pattern is so distinct it seems worth noting. The groups least likely to travel widely are women who lost their vision before the age of five, and both men and women whose visual loss occurs after the age 45.

As was noted earlier in this chapter, a very large percentage of those with useful vision attribute their blindness to congenital causes. Now, as we study the relationship of mode of travel to the age at which vision was lost, we find essentially the same percentage of those who are blind from birth traveling without any travel aid. Approximately 37% say they never use any travel aid, while close to 45% have sufficient travel vision to be comfortable in familiar circumstances. This naturally means that a smaller percentage of those born blind use either the cane or the guide dog but I am sure these latter facts relate to the large number having travel vision, not directly to the fact that they were born blind. A rather high percentage of those who lost their vision after the age of 30, also retain travel vision—roughly one-third. Relatively few of those who lose their vision after 35 use guide dogs. The cane is the most popular travel tool, although percentages for various age-of-loss groups varies from 30% to 65%, with no clear pattern relating to the age of loss.

e) *Use of braille and gadgets.* Those who lost their vision early in life become the chief users of braille, as Figure 26 shows. Probably this is because they are taught it as part of their basic schooling and are pretty much compelled to achieve proficiency with it. The percentages drop off rapidly with each age-of-loss group beyond 15 years of age, although those who lost their vision early enough to need



*Percentages apply to those who do little or no traveling as part of their work.

FIGURE 25. Age at loss of vision related to amount of travel.

braille for college still make major use of it in more than 50% of the cases.

Age of loss of vision seems to have no relationship to the tendency to use "gadgets."

f) *Group activity.* We also find no relationship between age of visual loss and group membership. We had guessed that those who lost their vision early in life might be more inclined to join organizations for the blind, while those who reached adult life as seeing people might, instead, cling chiefly to regular community groups. Our

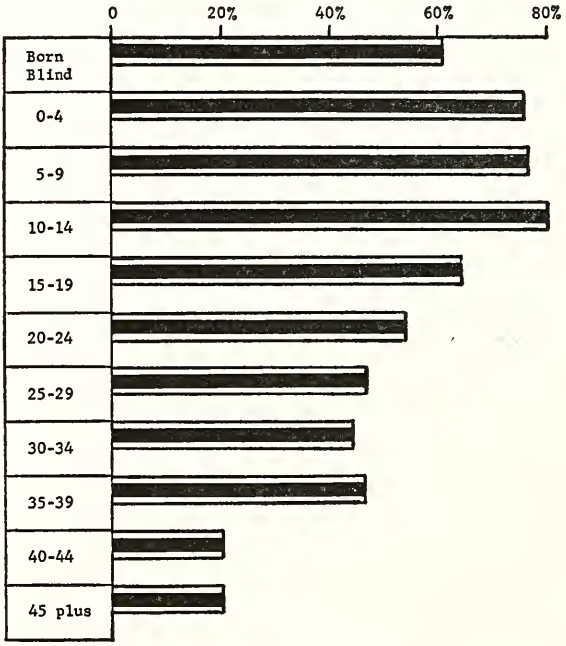


FIGURE 26. Age at loss of vision related to extensive use of braille.

data do not support this hypothesis. Of the 213 people who were blind before the age of ten, 72 belong to community organizations and 71 to organizations for the blind. Only among the rather small number in this study who lost their vision after they were forty years of age do we find an apparent lack of interest in organizations for the blind.

3. *Number of Years of Blindness*

One might suppose that the number of years an individual has been blind would affect his behavior in such areas as travel, use of braille, etc.

Our data indicates that the only group for which there is any significant difference is the group (in our case very small) who had lost

their vision less than five years before the interview took place. There are only 16 such persons in the study and it is possible that this number is so small that the findings are the result of chance; yet if that is true, the number of years of blindness have no relationship whatever to the items listed here.

At any rate, our data indicates that those who have been blind less than five years travel less widely, make much less use of braille and somewhat less use of gadgets, and have not yet become members of organizations for the blind. After five years of blindness, apparently the individual's pattern is set and he continues to function pretty much in his pattern for the rest of his life. In one area, mode of travel, his pattern is pretty much set even within the first five years of blindness. Of course this was not a longitudinal study and we draw these conclusions simply from the fact when we study our interviewees in five-year groups based on the length of time they have been blind, there are no significant differences and no pattern of change from one group to another except, as noted, for those blind less than five years.

4. *Cause of Blindness*[1]

The reported cause of blindness was related to all the areas under discussion in this chapter and almost no significant relationships were found. We were particularly interested in the lack of relationship to the nature of schooling in the pre-college years. Whether the person lost his vision gradually or suddenly or was blind from birth, in all groups, approximately twice as many attended schools for the blind as attended schools for the seeing. It is less surprising to find no relationship to their method of traveling, their use of braille, their membership in groups.

Some minor differences, of questionable significance, are the following:

1) The congenitally blind tend to enter upon their professions at a slightly younger age. One could guess that many of those who lost their vision during the school years also lost time from school, or there may have been delays until they learned braille, etc. However, this may also be related to the fact that the congenitally blind and those who lost their vision gradually from non-traumatic causes are less likely to go on to advanced degrees; only 43% of them did so, compared with 60% of those with sudden and traumatic loss (T—3.2). This appears to have significance until we realize that these two groups are heavily weighted with women who were much less likely than men to seek advanced degrees. Therefore, what at first appears a curious relationship between cause of visual loss and amount of education proves, in the end, merely to be a mirror of a very real difference between the sexes on this point.

[1] Also see Chapter II, Section 1(d), Section 2(c).

2) The congenitally blind tend to report more problems in both school and college, and in the pre-college years the emphasis is upon social problems.

3) Those who have lost their vision through trauma, including the war-blinded, tend to do more traveling in distant places, both familiar and unfamiliar, than do those whose visual loss resulted from other causes. However, as noted earlier in this chapter, extent of travel is strongly related to the age at which vision is lost and to sex; those who chiefly make up the group with traumatic loss of vision are men whose visual loss occurred during the late teens and early twenties. Therefore this correlation between extent of travel and traumatic loss is probably spurious, the real relationship being with sex and age of loss.

CHAPTER IV

EDUCATIONAL FACTORS RELATED TO OTHER CHARACTERISTICS

1. *Nature of Schooling.*[1]

The preceding chapters have mentioned some relationships between the nature of schooling and both general life characteristics and visual factors. Also, in Chapter II we defined two patterns of schooling for those who were blind in the pre-college years. One pattern emphasizes retaining the blind student in regular school classes, with varying forms of help, while the other pattern results in education chiefly in residential schools. For a small number of our interviewees there were a number of changes from regular school to residential school and back again and it is hard to know what influenced them. The interviewees also include two other educational groups: those who had all their education before loss of vision, and those who had completed high school and perhaps had just begun college, when they became blind.

a) *Date of loss of vision.* Naturally, when we try to relate the date of loss of vision to the nature of schooling we find that all interviewees who had lost their vision within ten years before our study had had all their education as seeing people, or at least all their pre-college education. Ten years would not have given them time to be in secondary school, in college, and become established professional workers.

Persons with similar educational experience also appear in large numbers among those who lost their vision in the nineteen-forties, as shown in Figure 27. Of those who lost their vision before 1940 only 28 were educated as seeing people. Again this is the natural effect of the passage of years.

More interesting are the two groups who were educated as blind people. For those who lost their vision before 1930, roughly twice as many in each ten-year group went to residential school as remained in public school. Of those who lost their vision during the thirties and were still of school age, 43% were educated chiefly in regular schools and 57% in residential schools. For those who lost their vision during the forties, these percentages reverse: 58% were educated in regular classes and only 42% in residential schools.

Here we seem to see a definite pattern toward the education of blind children outside the residential school. Unfortunately there are

[1] Also see: Chapter II, Sections 1(e), 2(d); Chapter III, Sections 1(b), 2(a).

great variations in the way the non-residential schooling was handled so it may not really be fair to generalize about non-residential education. I have carefully avoided using the term "integrated" since in some cases the educational practices described did not represent much real integration; but one might argue that the opportunity for integration was more nearly present than when the child is away from both home and neighborhood for more than half of the year.

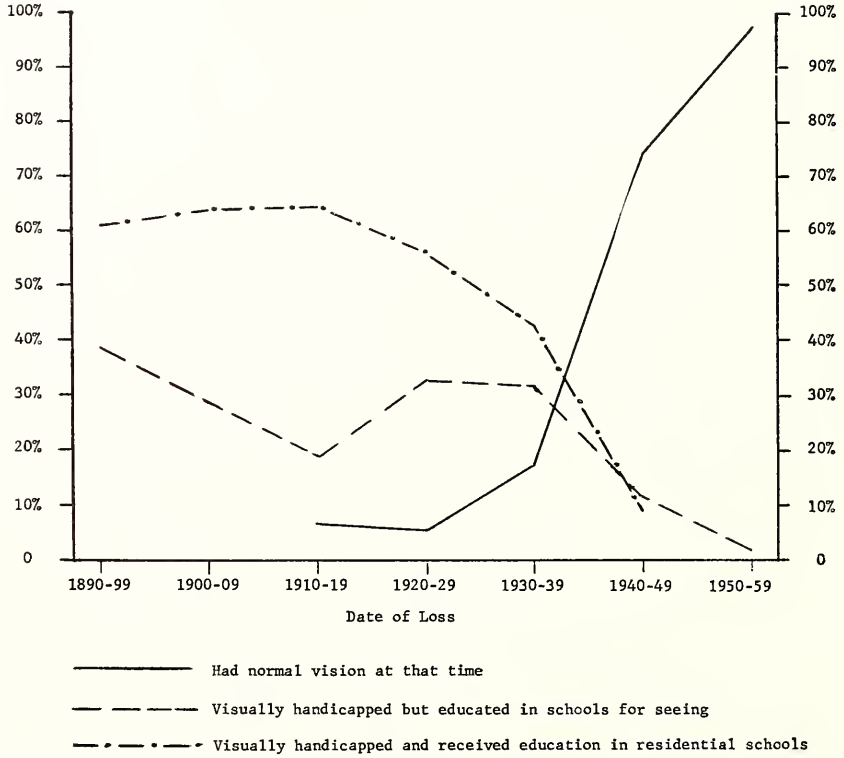


FIGURE 27. Nature of schooling preceding college related to date of loss of vision.

At any rate, as we discuss other relationships with the nature of schooling, we should keep in mind that those educated as seeing people are predominantly the younger members of our group, while all of the older persons were educated as blind people.

b) *Problems in school, and college.* The group which reports the greatest number of academic problems in both the pre-college and the college years is the group which started school as seeing persons, lost their vision, but remained in regular schools. In 41% of the cases,

they state that they had difficulty with their studies before college and in 62% of the cases they had trouble in college. Next highest in reporting difficulty before college are those who made a number of changes back and forth between regular and residential schools (22.7%); and at the college level, they are joined by the other two members of the regular-class oriented group (those who were visually handicapped throughout schooling but remained in public schools and those who attended residential schools during the elementary years but went to public school for high school), in all of which groups roughly 54% report academic troubles in college.

If we combine figures for the three regular-school oriented groups and the three residential-school oriented groups we find that before college, 19% of the regular school group reports academic problems versus 6% for the residential school group; in college these percentages are 55% versus 43%. In the pre-college years a small percentage of each group complains of difficulties in basic skills—roughly 6% in each group.

This picture, which appears to favor the residential schools, tends to reverse in the area of social problems as shown in Figure 28. The residential school group reports social problems before college in 32% of the cases, compared with 22% for the non-residential group. At the college level there is no real difference—about a quarter of both groups report social difficulties. However, a higher percentage of the residential group report that they had no difficulties at all in college: 41% compared with 34% of the non-residential group. Socially, the group which seems to have fared best both before college and in college were those who made moves back and forth between the two forms of schooling—at least this seems to have taught them how to get along with almost all kinds of people.

c) *Amount of education.* One might certainly suppose that the educational pattern would affect the individual's going on to advanced degrees and if we consider each of the small groups separately there are fairly wide differences. Those who had all of their education as seeing people—in general, people who were already established in their professions before visual loss occurred—had higher degrees in only 40% of the cases. This is the lowest percentage for a group of significant size.

The groups in which most went on to post graduate degrees were those who lost their vision between high school and college or in the first two years of college, and those who lost their vision during the school years and transferred to residential schools for at least high school. This relationship may be adventitious, however, since both of these groups, and especially the first, weight heavily with men who, as a sex, tended to seek advanced degrees.

If we again combine the three groups with residential orientation and the three groups with non-residential orientation, almost exactly

half of both gained advanced degrees, arguing that the nature of the educational background has little to do with this.

d) *Years between graduation and entering the profession.* One might suppose that these two patterns of schooling could affect the

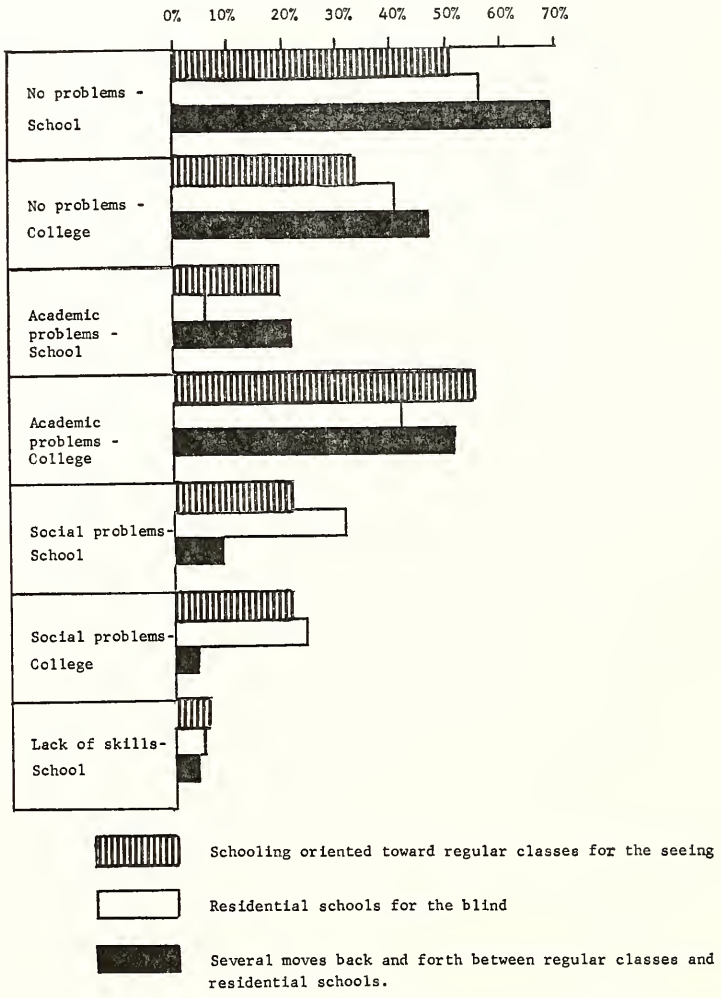


FIGURE 28. Nature of schooling related to social and academic problems before and in college.

opportunity to become established in one's profession but our data give no support for this. For each six months interval between completion of training and entering the profession, the percentage placed, for each group, is extremely similar and by the end of two

years, roughly 72% of both groups were in their professional fields.

e) *Other work experience.* There is again an amazing parallel when we consider the work experience of persons with these two patterns of schooling. For those with no experience as seeing people, we classified jobs preceding true professional placement simply as unrelated or related. Unrelated experience was reported by roughly 29% of both groups, related experience by 36% of the regular school group, 40% of the residential school group. It would seem that the residential or non-residential background has nothing to do with opportunity in the world of work.

f) *Travel habits.* Differences here are minor and probably not related directly to the nature of schooling. It does develop that 38% of the non-residentially oriented group say they travel beyond their local area, while only 29% of the residential group say this. However, it also develops that 34% of the non-residential group is mobile chiefly on the basis of travel vision compared with 20% of the residential group. Percentages using the cane in the two groups are about equal but the residential group exceeds the non-residential in use of the guide dog by 10%

g) *Use of braille.* Somewhat to our surprise, since one would suppose that braille would be more emphasized in the residential setting, there is no significant difference in use of braille by those with chiefly residential and those with chiefly non-residential backgrounds.

h) *Group activity.* Finally, one might suppose that those who had been educated chiefly with blind people in the residential schools would either cling to these associations and therefore make up a major part of the membership in organizations for the blind—or, perhaps, be so weary of this company that they would shun such organizations. Again, our data do not support either hypothesis. From the two types of educational background, almost the same proportions are members and leaders in groups for the blind. This is also true of membership in professional and community groups.

One might argue that the chief effects of attending a residential or a non-residential school lie in the problems, academic and social, experienced in those schools and, later, in college. There is no statistical evidence for believing that the choice will deeply mark the whole of an individual's life, at least among people who are able to succeed in college and go on to the business or professional world.

2. *Amount of Education*[1]

a) *Size and type of college.* Those who, as undergraduates, attend the larger colleges and universities tend in greater numbers to go on to advanced degrees (T—3.9, significant at the 0.1% level). There may be a number of explanations of this, of course; perhaps it is

[1] Also see: Chapter II, Section 1(g); Chapter III, Section 1(d) and Section 4.

chiefly those with greater ability who attempt to go to the larger colleges, and these are also the people who would naturally want advanced degrees. Perhaps professors in universities are more likely to encourage students to go on. Perhaps it is just a matter of environment; on the campus of the university, the undergraduate may meet graduate students whose very example implants the thought of graduate work. And, finally, it does to some degree relate to the fact that men tended both to go to large universities and to get advanced degrees, although the linkage with sex was not as strong in this case as in others already noted.

b) *Problems in school and college.* Although the differences here are not statistically significant, there is an understandable tendency for those who reported academic problems in school not to obtain advanced degrees. For 22% of them, training stopped with graduation from college. An additional 41% took some training beyond the four undergraduate years but did not complete work for advanced degrees. Only 37.5% of them went on to the master's or doctor's degree, compared with 54.4% of those who reported social problems and 50% of those who reported no school problems at all.

The reporting of problems for the college years shows no relationship with advanced degrees. This may be because our data did not usually permit us to differentiate between problems related to the undergraduate years and problems related to the graduate years. Slightly more than 50% in all three groups (those reporting no problems, social problems, or academic problems) achieved advanced degrees.

c) *Group activity.* Statistically there is a very strong relationship between obtaining advanced degrees and membership in professional organizations, a T of 5.3 which would be significant beyond the 0.1% level of confidence. However, this is inflated by the fact that most of our businessmen did not have advanced degrees nor was there any "professional" organization for them to join. A mildly significant (T—2.4) relationship also exists between advanced degrees and leadership in professional groups. These findings would probably be paralleled among seeing persons. Both membership in professional groups—and certainly leadership in such groups—and advanced degrees reflect the intensity of interest in the profession and the amount of time and effort given to it. Those with advanced education are slightly—but only slightly—less likely to be members of groups for the blind. There is no relationship to belonging or leading in community groups.

No other relationships with amount of education show any significance. There is a somewhat greater tendency for those with advanced degrees to give work histories which include related experience but the differences are not great and in many cases this related experience represents field work or part-time jobs while doing graduate work. There is no relationship with such characteristics as mode of travel, use of braille, use of gadgets, etc.

3. *Problems in School and College*

Most of the significant relationships with these problems have already been discussed as they related to other factors.[1]

There is very little difference between the men and the women with regard to percentages reporting each kind of problem. However, a cross tabulation of those reporting problems in school and in college reveals some interesting changes as shown in Figure 29.

Many of those to whom the item did not apply in their pre-college

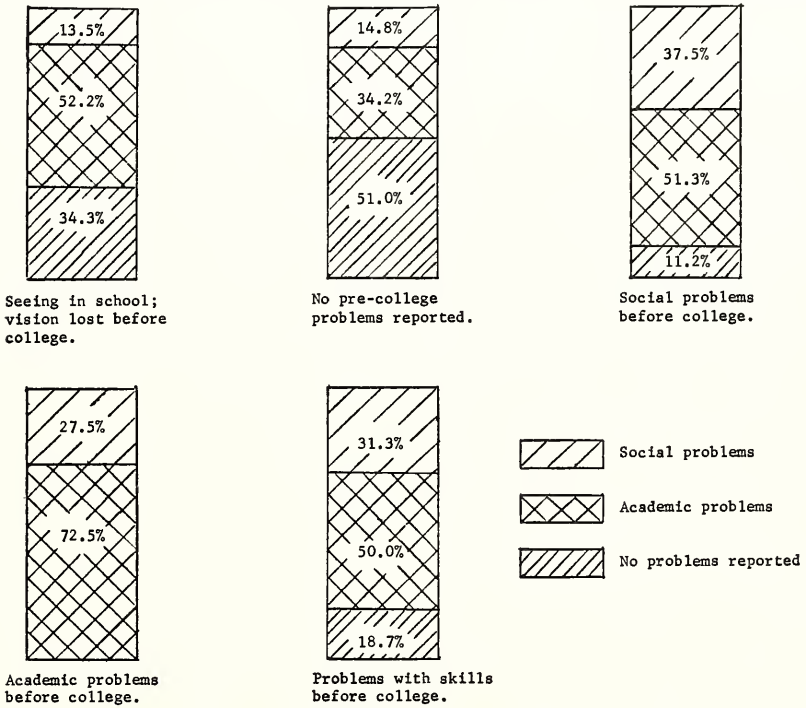


FIGURE 29. Problems in school related to problems in college.

years, because they could then see, lost their vision before attending college and slightly more than half of these report academic difficulties in college; a few more than ten per cent report social problems in college but it is quite clear that the major difficulty was in making the adjustment to being students without vision.

Out of 155 persons who reported that they had no difficulties before college, just about half still report no difficulties in college. However,

[1] See Chapter II, Section 1(h), 1(i), 2(e); Chapter III, Section 1(e), 1(f), 2(b), and Section 4.

about 40% report academic difficulties in college and 15% report social problems.

Those who are most surely in trouble in college are those who report academic difficulties in their earlier schooling. Of these approximately 75% say they had academic problems in college, 27% had social problems, and only 17% had no problems.

As for those who reported social problems before college, 51% now report academic problems in college, 37% continue to have social problems. Also, exactly half of those who had difficulties with the basic skills before college report general academic problems in college. In short, any kind of problem before college is likely to show up as an academic problem in college. This may in part be the result of the way in which we classified the reported problem because any difficulties with readers or problems about getting material read or recorded were classified as academic problems since we assumed the individual's academic work suffered by this. However, it is very true that the individual who has social problems, who does not know how to get along with people, how to get people to do things for him, is likely to have reader problems.

It may also be of value to note the lack of significant relationships between school and college problems and certain other factors upon which one might suppose they would have some effect.

There is some slight tendency, particularly in the pre-college data, for those who reported social problems to show less leadership in groups of all kinds; they are just as likely to appear as members of the group, but not as leaders. There is no relationship whatever to travel habits, use of braille, gadgets, assistance at work, etc; however, all of these latter are recorded as they were at the time of the interview. It is quite possible that the individual was less capable with braille, less mobile, etc., when in school and college and were it possible to correlate these items as they were at the time the school and college problems occurred, there might be some relationship.

There is also no relationship between the school and college problems, as reported, and the source of counseling as reported. Persons with problems do not seem to have sought counseling from more or different sources than did those without such problems. Also there is no evidence that these problems affected the individual's other work experience or the age at which he entered his profession; that is, percentages for those reporting problems are almost identical with percentages, in each subgroup, of persons reporting that they had no problems.

CHAPTER V

COUNSELING, AND PROFESSIONAL WORK EXPERIENCE

Many facts related to counseling and to professional experience have already been discussed, in earlier chapters, as these facts related to the basic life data, visual data, and educational data analyzed in those chapters. The results of these analyses will not be repeated here.

1. *Source of Counseling*[1]

Almost exactly one-fourth of our interviewees reported no counseling whatever and 58% of this group were fifty or more years of age at the time of the interview. In some cases these were persons whose blindness had occurred many years ago when organized counseling services did not exist. In many other cases, they were persons whose blindness occurred late enough in life so that they were already established in their professions and they simply went on with their work, making whatever arrangements were necessary in order to make this possible. With each younger age group, the percentage reporting no counseling diminishes to almost none in the youngest group.

a) *Age at time of interview.* As has already been noted in Chapter I, as we move from our older age groups to our youngest, there is a dramatic increase in the number of persons counseled by public agencies, including the Veterans Administration (See Figure 30). Such counseling was reported by only 10% of those over sixty while it is reported by close to 60% of those under forty. All of this is easily understandable in the light of the fact that such public services did not exist years ago. Probably the few older people who have been served, were counseled rather recently when visual loss occurred later in life.

Counseling by private agencies is reported by a very small number (25 persons in the whole group) but it is reported to about the same extent at all age levels.

One might suppose that as the percentage counseled by public agencies increased, the percentage reporting counseling from other sources would diminish. This is not at all true. From every source (although least from friends and relatives), counseling has increased. Indeed, relatively speaking, the amount of counseling by colleges has increased twice as much as has that by public agencies.

[1] See Chapter II, Section 1(j).

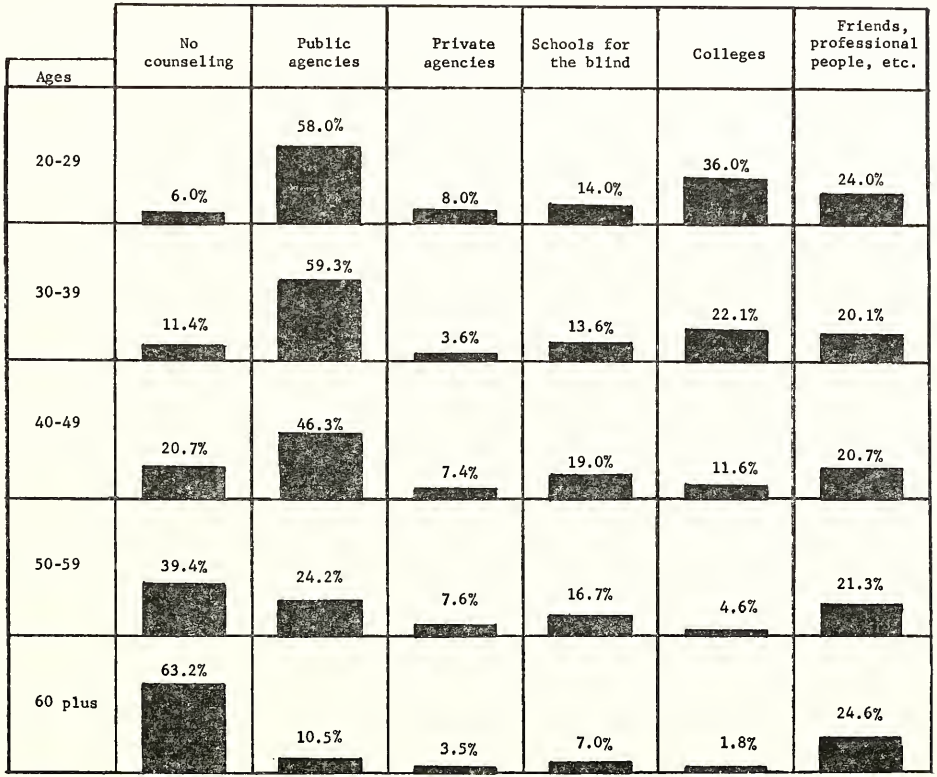


FIGURE 30. Source of counseling related to age at time of interview.

I suppose it is possible that some of the older people have now forgotten just how much guidance they did receive. However, it seems fair to state that our data dramatize the tremendous growth in the whole counseling movement in the past three decades. Everyone is more oriented toward the organized seeking and giving of guidance. Schools and colleges have greatly increased their facilities and, by adding trained counselors to their staffs, have made it more worth while for students to seek such help. Even professional people have tended to make themselves more available as sources of information for those who are considering that profession.

b) *Amount of vision.* One might suppose that persons without useful vision would be more likely to be counseled by agencies for the blind, while those who retain enough vision to read might more frequently become clients of college counseling centers. Our data does not support this. Percentages for each source of counseling are almost identical for those with and those without useful vision and this equal division is even true for those who received no counseling at all.

c) *Age at loss of vision.* This is, of course, a major factor in the sense that those who lost their vision later than adolescence would naturally not be counseled (at least as blind people) by schools. The persons counseled by the Veterans services lost their vision from the late teens to the early thirties. Those who lose their vision later in life have no resources except the public and private agencies although some report receiving useful advice from fellow professional workers.

d) *Cause of blindness.* No relationships are evident here except the obvious one that those served by the veterans organizations are the war-blinded.

e) *Nature of schooling.* Again, the only relationships are the obvious ones—only those who attended residential schools could receive their counseling. Those with chiefly public school background are more likely to turn to the college as a source of guidance. However, both residential and non-residential school students report counseling by public agencies to about equal numbers.

f) *Amount of education.* Here it is difficult to determine what is cause and what effect. Does the person with more education seek counseling from a different source? Or does a particular source of counseling suggest, and perhaps support, higher degrees?

At any rate, as shown in Figure 31, those who have least tendency to obtain degrees beyond the bachelor's level are those counseled by private agencies. Only 54% of these had anything beyond four years of college, only 12% went as far as the doctor's degree. Next are the groups who reported no counseling, or counseling by persons already in the chosen profession; roughly 61% of these two groups went beyond four years of college. For those counseled by the Veterans Administration and those counseled by other public agencies there is no significant difference in the percentage going beyond basic college—

roughly 70% in each case. However, a significantly greater percentage of those counseled by Veterans Administration went on to the doctor's level—46.4% versus only 12.9% of those counseled by other public agencies. Of those who indicate counseling by their colleges, 88%

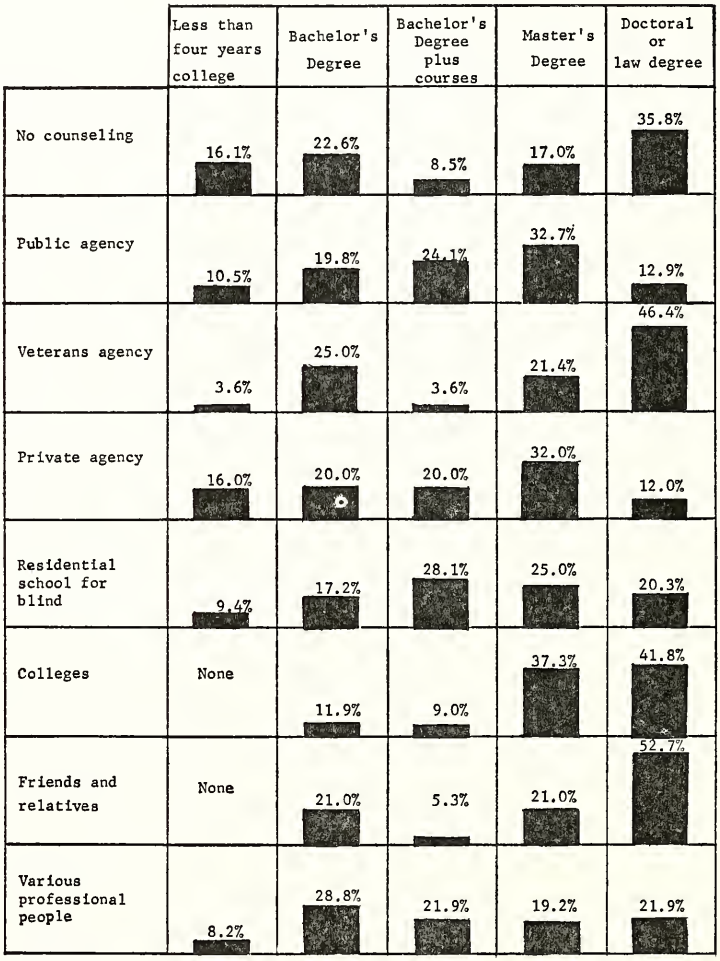


FIGURE 31. Amount of education related to source of counseling.

went beyond the four years of college. This suggests that college counseling may be offered chiefly where graduate degrees are under discussion and this may, indeed, not be counseling in the ordinary sense of that term. Rather, it is the guidance, the structuring of program, offered by specific departments to those who seek advanced degrees of those departments.

It may also be of interest to note that, of the very small number in this study who did not complete college, just half had no professional counseling at all.

g) *Years between graduation and entering the profession.* In rehabilitation, the effectiveness of a counseling service is often measured not by the happiness of those counseled but by the number of "placements." In our study, all are active in their professions, all have been "placed." We might, however, find some value in considering the relative speed with which those receiving counseling from various sources became established. In doing this, we must keep in mind the fact that some of the agencies offering counseling have organized placement services, others have none, and some of the sources of counseling under discussion are not organized at all (such as friends and relatives). We must also keep in mind that a number of interviewees received counseling from more than one source; it was often impossible to determine which contributed most to a specific placement so all have been credited.

In calculating the percentages upon which the following discussion will be based, we also omitted the 102 interviewees whose histories indicated no changes in vocational goal. About sixty per cent of these people had received counseling but this advice had related to managing without vision in work they were already doing, reader service, travel training, etc. Some persons in this number were also in work where placement in the ordinary sense was not involved; they were in elective offices, had been especially invited to accept the jobs they held, or were writers or musicians who are not employed in the ordinary sense of the word.

If we evaluate the source of counseling on the basis of the percentage placed within five months after completion of the required training, Figure 32 indicates that the poorest records are made by those counseled by private agencies, or by professional people such as the minister, the physician, or the person already in the chosen field ("professional" because of their own work but not connected with agencies and merely giving advice on the basis of their own experience). Roughly 40% of both groups were working before the sixth month. Within this same period, the group with the largest percentage at work gave credit for counseling to schools for the blind—68% at work. For other sources of counseling, the percentages vary around fifty. It may be surprising to note that 60% of those who claim no counseling were also working within this time; however, this group probably includes many people of special talent for whom the goal was obvious and who were already making some start on their careers while in college.

It should be noted that many factors, in addition to the effectiveness of the counseling itself, probably had a part in this record. The nature of the counseling source is, in itself, a selective factor. For

example, a considerable percentage of those who related to private agencies appeared in the group which received counseling unrelated to any change of career and this is also true for those counseled by professional persons outside the agency setting. Obviously, people who want help with placement tend to go to somewhat different agencies than do those who desire other kinds of assistance in adjusting to blindness. Also, much of the good record of the residential schools may be related not so much to the quality of their counseling as to the fact that they worked with a more homogeneous group,

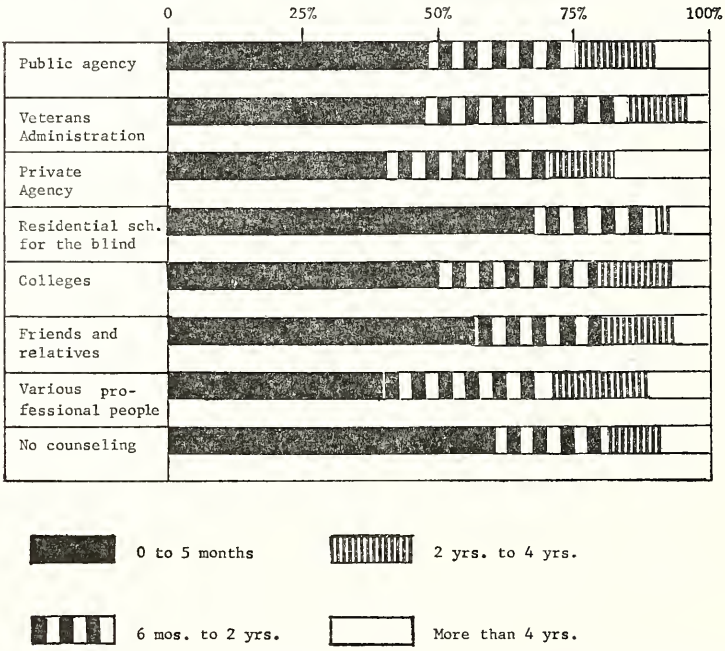


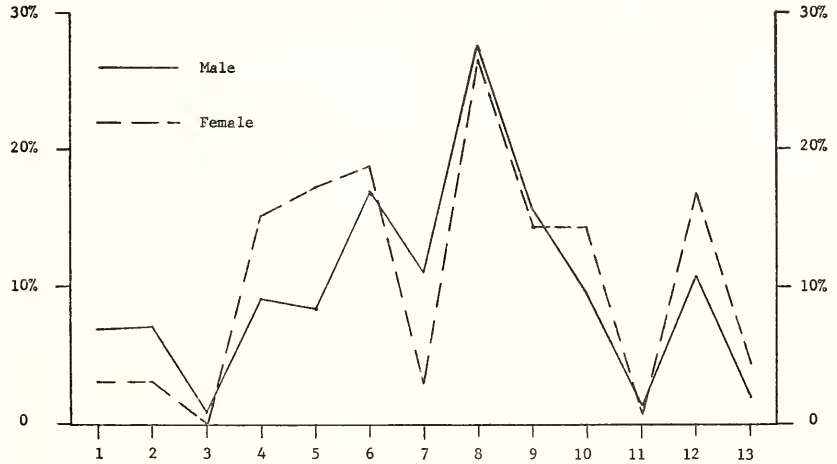
FIGURE 32. Source of counseling related to years between graduation and entering profession.

reached them early, and related to them over a much longer period of time. The public agency must accept all who apply, when they choose to apply, and never has the day-to-day contact and influence of the school. It is also true that about half of those counseled by the residential schools were also counseled by the public agencies; their early placement is credited to both.

h) *Mode of travel.* We wondered whether any source of counseling might have recommended a particular mode of travel strongly enough so that a relationship would appear in our data. No statistically significant differences appear but those counseled by Veterans Administration do show a strong tendency to be cane travelers, and they

have much the lowest percentage of dog guide users. Those counseled by schools for the blind have the lowest percentage of cane travelers but this is only because the group is heavily weighted with women, who tend not to use the cane; for the men only, the percentage equals the other groups.

i) *Use of braille.* Similarly, it seemed possible that certain counselors would put special emphasis on facility with braille. The interviewees making least use of braille are those counseled by the Veterans Administration and those who reported no counseling. Those counseled by residential schools are most likely to make important



1. Cnose when seeing
2. Family
3. Fellow students
4. School staff
5. Rehabilitation counselor
6. Person in the profession
7. Liked related courses
8. Hobby - "just liked it"
9. Own related work experience
10. Second choice
11. Vocational literature
12. Offered the job without seeking it
13. Own blindness

FIGURE 33. Decisive influence in the career choice.

use of braille but three other groups almost equal them: counselees of public agencies, colleges, and professional people outside the agency setting.

2. *Decisive Influence in the Career Choice*

In an effort to clarify the specific reason for a particular career choice, interviewees were asked what finally made them decide upon the thing they were doing. Some still indicated that more than one factor played an important part in their decision and the list is shown in detail in Figure 33. The men and women seem about equally influenced by the fact that they had enjoyed job related activities as hobbies or "just liked it." More than a quarter of both men and

women gave this response and it is the reason most frequently given. Men and women were also about equally influenced by their own work in related jobs and by other persons already in the profession. Women were somewhat more likely than men to make the final decision because of the influence of a rehabilitation counselor, a school, or the simple fact that they had been offered the job, but the latter was a major factor for more than 10% of the total group. Also, one person in ten frankly said that what he or she was doing was a second choice, sometimes reluctantly accepted, at other times a happy release from the frustration of rejections in the field first chosen. Eleven persons, all in work with the blind, said they had been led to the choice by their own experience of blindness.

3. *Years in the Profession as a Blind Person*

We wondered how, if at all, people change after functioning successfully for some years as a blind person. Patterns do emerge as we study this data, but the differences are never very significant and could often be explained merely on the basis of the individual's greater age.

a) *Amount of travel.* Those who travel most widely are those who have been in their professions from 15 to 25 years. Among persons of less than five years experience, only 28% claim travel beyond their local area. For each five-year experience group, the percentage rises until nearly 50% travel widely in the 15 to 25 year groups. Then the percentage rapidly drops to the original level.

b) *Mode of travel.* The only major change in this occurs in the greater use of human guides among those with longer professional experience. Since these are obviously the older people, age is almost certainly the reason for the changing pattern of travel habits.

c) *Use of braille.* In this no significant change occurs. At all experience levels, more than half state that they use braille for notes, records or files and regard it as very important to carrying on their work.

d) *Group activity.* Here we probably have the one pattern of change which does depend upon amount of professional experience (See Figure 34). This change is the fact that among the groups with more experience, we find a significantly higher percentage of persons who play a leadership part in their professional groups. The percentage of professional group members does not change from those with little to those with much experience suggesting that even those who are new to their fields of work quickly join the representative professional organizations. The more experienced members of the study group also tend toward greater leadership in community groups and in organizations for the blind. In all three types of organization, the highest percentages of membership are found among those with ten to thirty years experience. One can suppose that these are people well enough

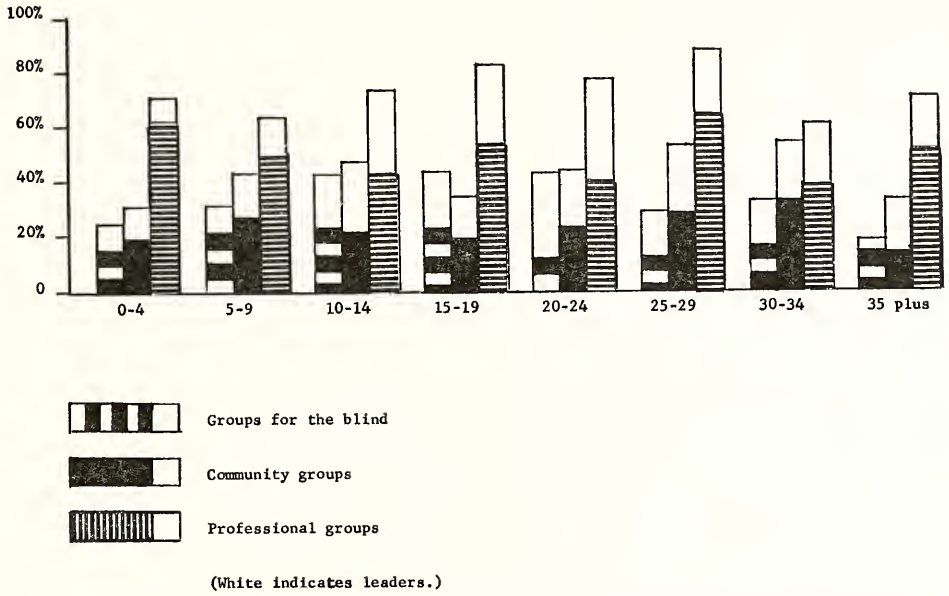


FIGURE 34. Group activity related to years in the profession as a blind person.

established to have time to give to organized groups, and still young enough to have the energy for such activity.

4. *Changes in Professional Goal*

Nearly half of our interviewees (206 people) said they had never seriously considered any profession but the one in which they were interviewed. However, 195 people had made one definite change in goal, twenty reported two changes, eight reported three changes and five indicated four or more.

Most frequently named as a reason for change was increasing loss of vision or the individual's realization that he could not succeed in the first choice with his amount of vision. Almost equally frequent was the statement that he simply discovered a new and stronger interest and in a number of cases the new interest was motivated by his own blindness and the desire to do something which would serve other blind people.

In 40 cases, the individual frankly stated that he could not get into the profession he first chose and he was therefore interviewed in a field which he regarded as a second choice although, with the passage of years, he often felt quite happy with it.

In 36 cases the change was made because the individual could not make enough to support his family in the first field of work, or simply could make more money in the second field; the motivation for the change was definitely financial. In 34 cases, the motivation was stated as a desire for advancement, accepting an opportunity with more status and more "future." One may assume that in these cases there would also be more financial reward. In another twelve cases, the reason for the change was stated as one of security, which may also be regarded as implying financial motives.

Five people made changes for physical reasons other than vision; other health factors forced the change. Five frankly said they did not like the amount of travel required by the first field of work and they had moved into a kind of activity which required less. Eight stated that they changed their field because they found they could not succeed in the first choice, not because of vision but for lack of other required attributes. Two changed in order to take part in a family business.

Only seven definitely stated that they had been counseled away from the field which they first chose and toward which they at first directed their educational plans. In several of these cases, the individual subsequently made his own decision to do what he originally wished and at the time of the interview he was succeeding with the profession from which he had previously been diverted by some counselor.

All of the above data are based on decisions, and changes in decisions, since the onset of blindness. We were interested in comparing the experience of those who had some occupation before visual loss

with the somewhat similar group reported in *War Blinded Veterans in a Postwar Setting.*[1] Our group, of course, greatly differs from the veterans in that only 22.3% had work experience as seeing people, whereas 61.6% of those veterans described as "professional" had had employment before loss of vision. However, in both cases, about half had had related experience, essentially professional in nature, while the others had been in very different occupations, commonly regarded as being at a lower level. In 48 cases our interviewees moved from definitely non-professional fields, work requiring much less education, such as mechanical work, agricultural work, and even semi-skilled occupations. Several frankly said that had they not lost their vision they would still be "down on the farm."

5. *Characteristics Related to Professional Fields*

a) *Age.* The youngest, and those with least variation in age, were the mathematicians who ranged in age from 25 to 38, with an average age of 33 years (See Figure 35). For all but one of these people, the professional activity centered in the use of electronic data processing so the youthfulness of the group may in part be explained by the fact that this is a very young field of work. None of these people has been in his profession more than 15 years.

Very similar are the psychologists whose age range is 25 to 46 and none of whom has been established in his profession more than ten years. The college teachers and performers in the verbal arts also have average ages under 40, but the oldest members of these groups are in their sixties, showing a much greater range in ages.

In terms of average age, the medical group is oldest, with 50 years as their average. Several factors contribute to this. A considerable number of this group are osteopaths and since blind people were excluded from this profession some years ago, there are no youthful interviewees among them. Also, this group includes medical doctors who lost their vision after years of practice as seeing persons.

The greatest range in age is found among the businessmen who vary from 28 to 84 years but whose average age is only 43. For eleven of the fourteen professional and business groups into which we classified our interviewees, the average age lies between 38 and 45, indicating great similarities in the age make-up of most of the groups.

b) *Marital status.* Because of the marked differences in the percentages of married persons among our men and women interviewees, the percentage of married persons in a specific professional group is much affected by the number of women in that group.

If we consider this characteristic among the men only, four professional groups show more than 75% married: the clergy, rehabilitation

[1] United States Veterans Administration. *War blinded Veterans in a post-war setting.* Washington, D. C.: U. S. Government Printing Office, 1958.

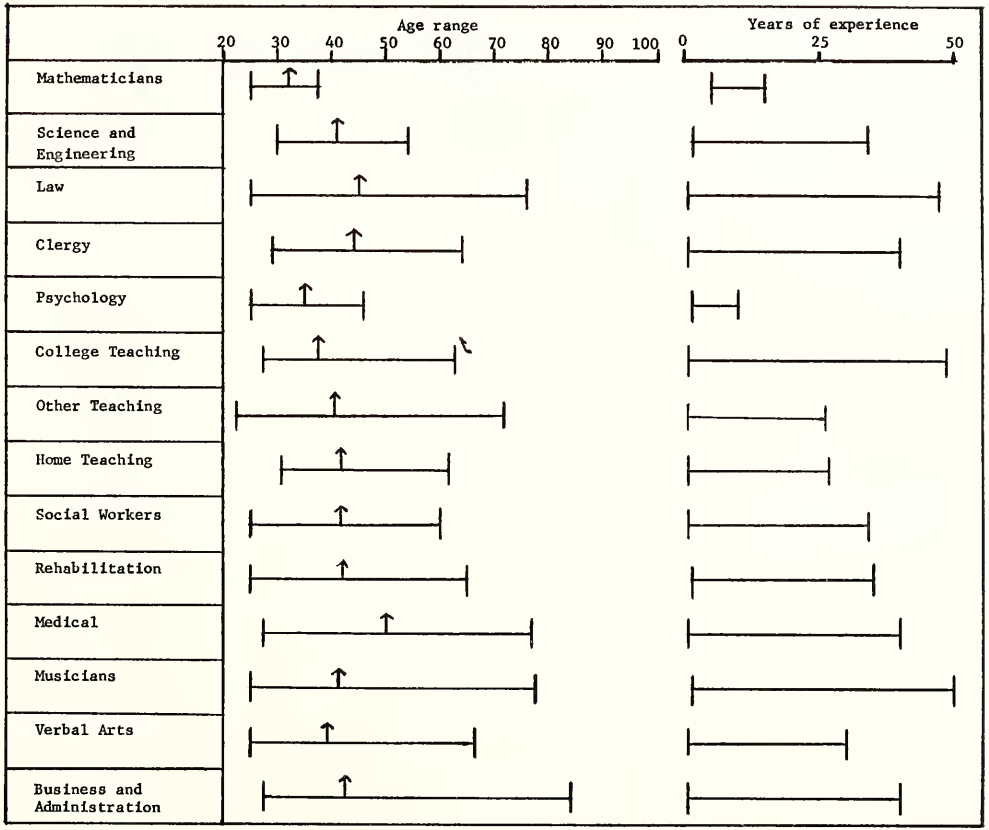


FIGURE 35. Age range and experience for interviewees in the various professional and business fields. ↑ indicates mean for each group.

workers, medical workers and musicians. Only two have half, or less than half married: the mathematicians and persons in the verbal arts.

If both men and women are included in our statistics, the least married group are the social workers since there are so many women in that group and only two of them are married.

On the whole, the professional groups with the largest numbers of young members and persons recently entering the field are those with the largest number of unmarried persons. In all probability as these young people become more firmly established a number of them will marry. There is no evidence that marriage will, in the end, be more characteristic of one group than of another.

c) *Amount of vision.* In every field of work, the largest percentage falls into the group with no vision whatever as shown in Figure 36. However, persons with some degree of useful vision make up approximately 40% of the scientific group and those who work with the verbal arts, teachers, and rehabilitation workers. The fields with the smallest percentages of persons with useful vision are home teaching (where hiring policies probably affect these data), business people who are not in administrative positions, and the clergy.

d) *Age at loss of vision.* All the professions include at least one person who was born blind, and more than one-fourth of each of the following groups was born blind: the clergy, college and other teachers, social workers and rehabilitation workers, musicians and persons in the verbal arts. The musicians, among whom nearly half were born blind, include no one who lost his vision later than his teens. Evidently people who lose their vision later in life are unlikely to turn to music as a profession. Of course, it would be quite possible for a long established musician to lose his vision in later life but we happen not to have had any such person in our study.

As might be expected from what was stated earlier about the medical group, this is the professional field in which we find the greatest number of persons who lost their vision late in life. If this were not true, the group could not include medical doctors who had already become established as seeing persons before blindness occurred.

e) *Date of loss of vision.* In this study, no one who lost his vision prior to 1920 entered the fields of mathematics, science and engineering, or psychology (See Figure 37). Those with earlier visual loss are most likely to be found in law, rehabilitation, music, or business, except for the considerable group of osteopaths. However, for those who lost their vision since 1940, the largest percentages are again found in law and business.

No relationship was found between professional field and cause of blindness.

f) *Nature of schooling.* Approximately two-thirds of those in psychology and in science and engineering had all of their pre-college training as seeing people and seven of the latter group completed under-

graduate college as seeing people. The mathematicians also include more than half with this type of educational background and all but one received his education chiefly in regular schools even though visually handicapped at the time. However, all of these groups in-

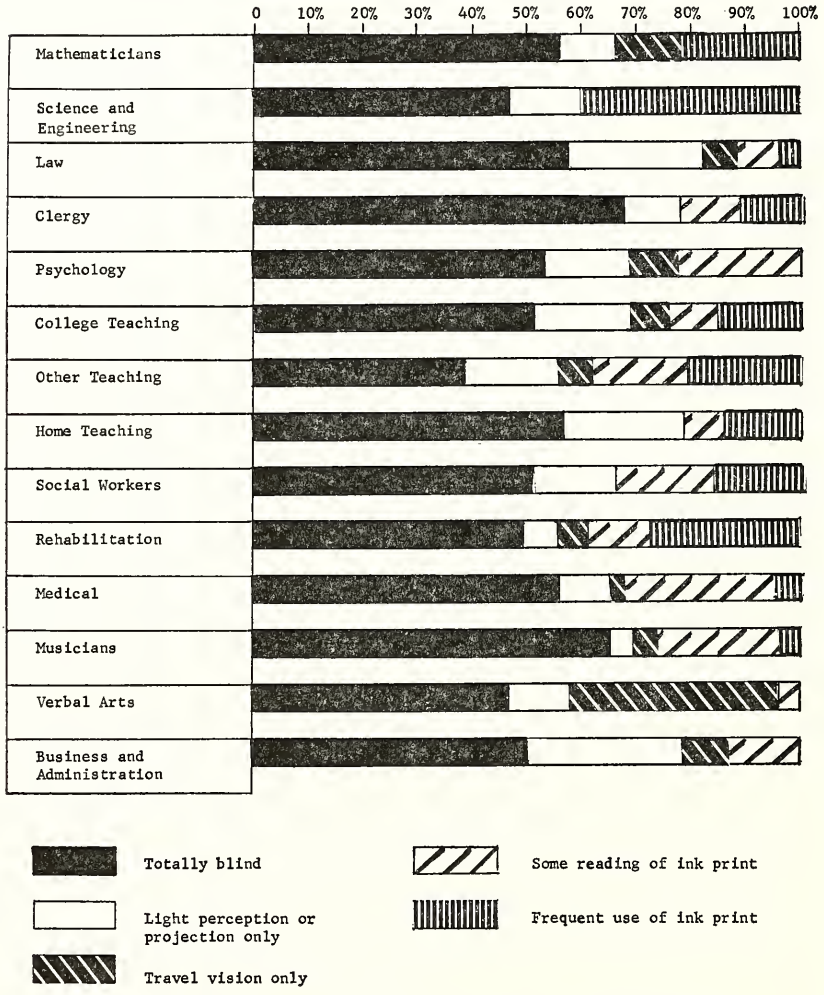


FIGURE 36. Amount of vision related to professional fields.

clude at least one member educated in the residential schools and five of the scientists indicate such training. Obviously, training as a blind person can produce successful members of these professions (See Figure 38).

The only profession represented entirely by persons educated as

blind people is music; 73% were educated in residential schools, the others in public school classes for the visually handicapped. The residential schools also educated more than half of the home teachers,

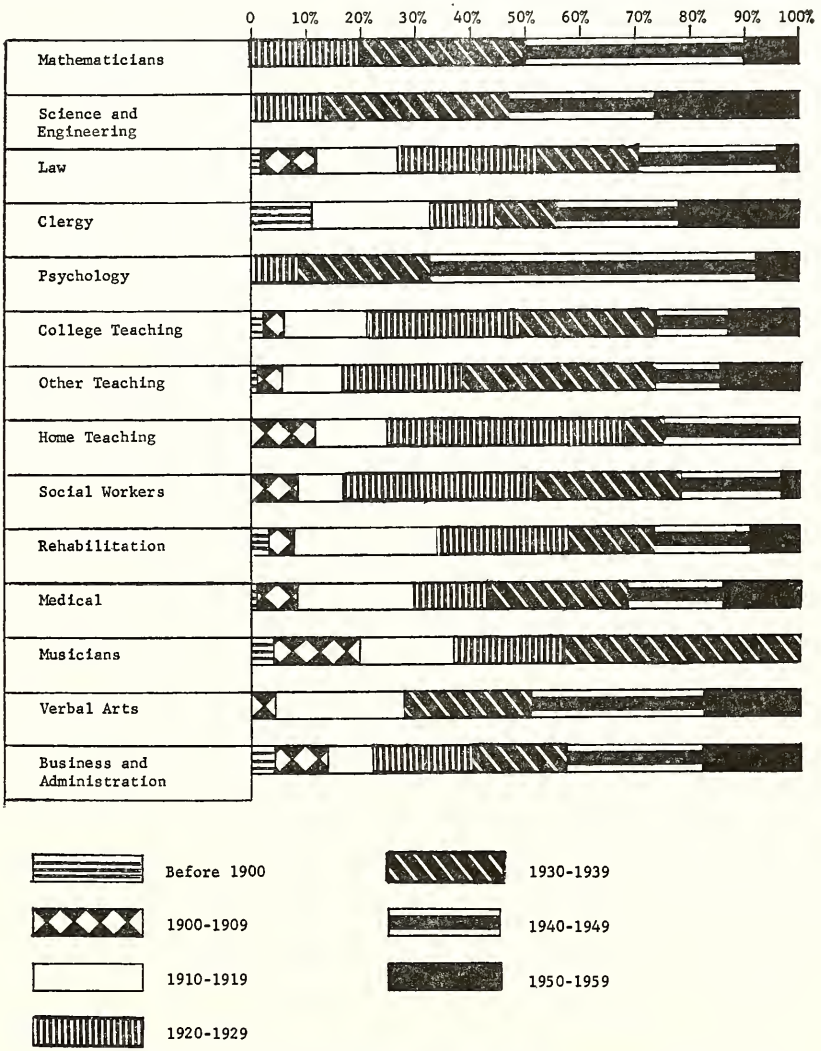


FIGURE 37. Date of visual loss related to professional field.

and approximately 45% of the clergy, social workers and medical workers. Most of the fields thus far unmentioned in this section include persons in about equal numbers from the three major educational patterns (education as a seeing person, as a blind person in public schools, or as a blind person in residential schools).

g) *Travel habits.* The groups showing least concern about independent travel are the mathematicians, engineers, psychologists, and college teachers. Other teachers make a point of independent mobility

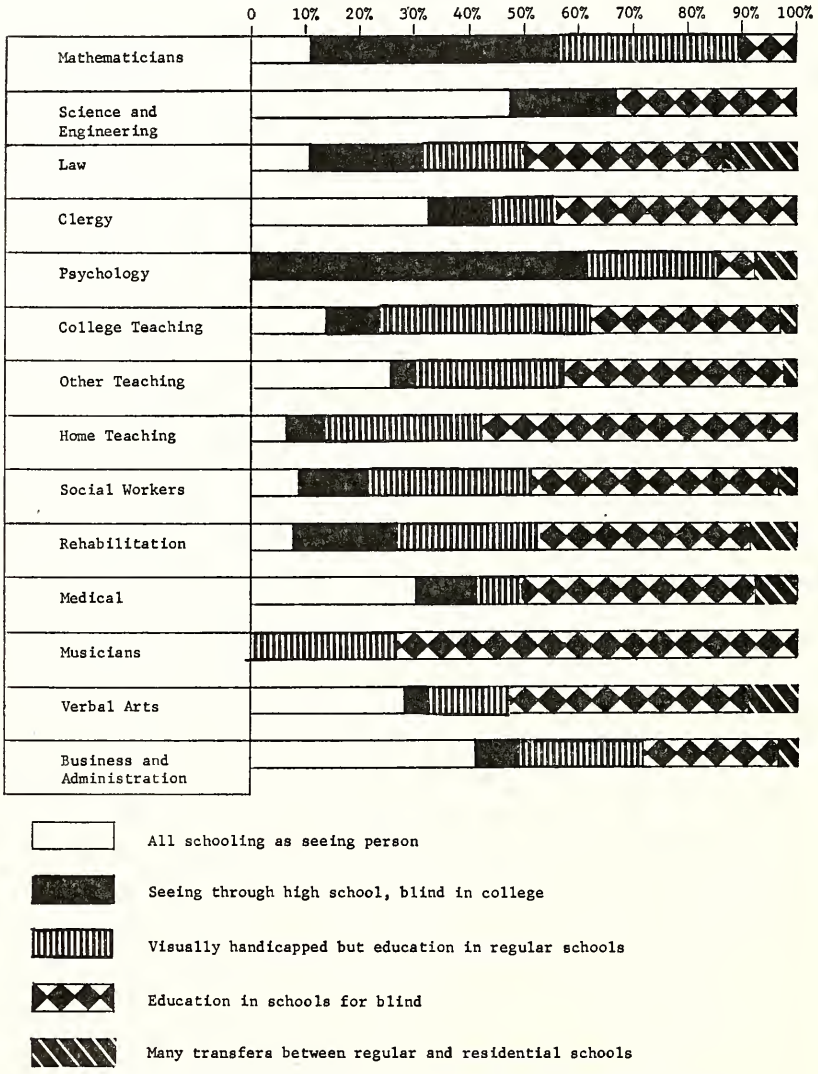


FIGURE 38. Nature of schooling related to professional field.

within the classroom, but are often rather dependent in distant travel. The people most concerned about independent travel over wide areas are the rehabilitation workers. Those with the greatest range of travel habits are the musicians; some of these teach in their own homes and

apparently never go outside independently while others constantly travel not only all across the nation but in foreign countries. The business group also includes a wide range of travel attitudes with a large percentage feeling that independence is very important although they rarely travel great distances and in very unfamiliar areas.

h) *Group membership.* Those who seem least likely to join any group are the mathematicians and engineers, and when they do indicate any membership it is only in their own special scientific groups. None indicates any interests in groups for the blind and in general they do not seem to think of themselves as blind people.

The greatest "joiners," including the largest membership in groups for the blind, are the social workers, home teachers, and other rehabilitation workers. Teachers other than home teachers are active in education groups and in community groups, with some members in organizations for the blind.

i) *Other work experience.* Lawyers and musicians seem least likely to have had any other work experience. The musicians usually became active in part-time jobs while still in school and never deviated from this goal. The lawyers at least nominally established themselves in offices as soon as they could but in many cases they did supplement their income by other activities along with the legal practice, such as political appointments or selling.

Rehabilitation workers seem to have had the widest variety of other jobs, some definitely related to the field but many not related.

CHAPTER VI

ATTITUDES, ADVICE AND SERVICES

In addition to collecting, in our interviews, all of the factual data presented both in "Placing Blind and Visually Handicapped Persons in the Professions" and in the preceding chapters, we also asked our interviewees how they felt about certain aspects of their experience. Since these were open-end questions and sometimes called forth rather lengthy discussion, it is necessary to omit a great deal of detail in order to treat these responses statistically. Many of these comments showed great insight, reflected great thoughtfulness, and we sincerely wish that it were possible to present them as they were recorded on our tapes. We are very grateful to our interviewees for the light they have thrown not only upon their personal experience but, surely, upon the experience of many blind people.

1. *Attitudes Toward Residential Schools*

Information in this section came from 53 women and 168 men who attended residential schools. This question would not, of course, apply to the 213 interviewees who did not attend residential schools.

Responses have been classified under the following headings:

Generally satisfactory attitudes, without mention of specific reasons

Praise for the academic training offered by these schools, indicating that the person felt especially well prepared for college or is still making major use of what was learned there

Criticism of the academic training or statements that important material was omitted

Praise for the social opportunities or training offered, for the understanding of blindness which enabled the person to adjust, etc.

Criticism of the social opportunities or training, indication that the individual later suffered because of limitations imposed

Praise for certain specialized training, such as braille, typing, music, etc. Also travel, and non-academic skills

Criticism for omitting training in some non-academic skills, such as travel

Criticism of guidance and counseling offered by the school or of the lack of any counseling

Wished he had attended regular schools or, in some cases, did transfer to regular schools, showing dislike of residential schools.

Table 25 shows the number of men and women making responses in each of the above categories. It is at once evident that the differences between men and women are small. About 40% of both men and women indicated generally satisfactory attitudes and another 25% specifically praised the schools for the academic training offered. The women, in larger percentage than the men, expressed appreciation for the special skills and, in particular, appreciated the opportunity for musical training. The number who praised the social aspects of the residential schools is much smaller but it seems important to note that some definitely did so. They indicated that they were sure they would have had less chance to develop leadership in a regular school setting, or that they would have been unable to compete in athletics, or would have had more difficulty in evaluating themselves by comparison with those around them. Several people who lost their vision during the school years expressed warm gratitude for the understanding and aid in adjusting which they found in a residential school.

Against this we must balance the fact that 15% of the women and 23% of the men felt that residential schools had had a very bad effect, socially, upon them. They expressed great unhappiness, felt that the segregation of boys and girls had left a lasting mark upon their ability to mingle normally with the opposite sex. As is so often true of critics, they tended to express themselves forcefully and what they say is often more colorful than are the favorable remarks.

The percentages who criticized academic or non-academic training or the lack of counseling were small and only 14 persons in the entire study said they wished they had gone to a non-residential school or stated that they did transfer because of dissatisfaction.

When we relate these responses to the age of the interviewees, we find that criticism occurs more frequently in the younger age groups, with complaints about social problems coming chiefly from interviewees between 30 and 49 years of age. Much the largest number of critical remarks came from persons who had all of their pre-college education in schools for the blind. It is interesting to note that there is much less criticism from those who had some of their education in residential schools, some in regular schools. Perhaps those who never experienced regular school classes are somewhat unrealistic about the advantages—or at least about the lack of disadvantages. In particular, most of the small group (26 persons) who had their elementary training in residential schools, high school in regular schools, said very kindly things about what they got out of these early school years.

When we relate these attitudes toward the residential school to reported problems in college, we find that the largest number of criticisms come from people who say they had social problems in college, next

largest number from people with academic problems in college, and of course fewest from those who reported no college problems. Again, however, it is surprising how many favorable remarks are made by people who reported problems in college.

We also tabulated these attitudes toward the residential schools in terms of other data, such as marital status, amount of vision, cause of blindness, age at loss of vision, etc. and found no relationships whatever.

2. *Attitudes Toward Non-Residential Schools*

In this section we are reporting the attitudes of 30 women and 111 men who attended non-residential schools while blind or very seriously limited in vision. As was noted in an earlier chapter, the nature of the schools and the kind and amount of help given the blind child varied a great deal so that one might reasonably question how many of these people had the same experiences.

Nevertheless, approximately 60% of both the men and the women expressed general satisfaction with this education and another 5% indicated that they felt they had had good academic training. This almost exactly equals the percentages in the residential schools expressing these same points of view. However, as Table 26 shows, a much smaller percentage praised good specialized training.

Compared with the responses for residential schools, about the same percentage of women felt the non-residential school had had good effects socially, but a considerably larger percentage of men had praise to give in this area. Criticism of poor effects socially are much fewer.

Again those who reported having problems in college tend to be more critical of the non-residential schooling which prepared them for college but many of them speak quite favorably of it.

No relationship was found with marital status, age, and the other items mentioned for cross-tabulation in the last section.

3. *Attitudes Toward College*

In this section we report on the attitudes of 76 women and 264 men who attended college as blind people. Their comments are grouped under the following headings:

Generally satisfactory attitudes without specific reason given but including some very warmly positive remarks—"college was wonderful!"

Somewhat critical attitudes growing out of difficulties in getting classes they wanted, troubles with professors, difficulties in getting reading done or managing other preparation for classes, difficulties in taking tests, or general statements that they felt poorly prepared and therefore felt stress in college

Statements that they were unhappy in college for social reasons, felt they were not accepted, had trouble making friends, etc.

Statements that college was a good experience except for their difficulty with mobility

Here none of the differences between men and women is significant. About 70% reported satisfactory experiences and had a good feeling about their college years. As Table 27 shows, a slightly higher percentage of the women reported mobility problems. For both men and women academic problems appear a bit more frequently than do social problems but this does not look like a particularly troubled group and one wonders if a typical group of seeing college students might not report a greater number of difficulties.

It may be of interest to note that favorable attitudes were expressed by almost exactly the same percentages of those from residential school backgrounds and those from the non-residential schools. However, three-quarters of the responses which were unfavorable in the social area came from residential school people, while two-thirds of the responses unfavorable in the academic area came from the non-residential people. Those who had reported problems in the pre-college years were much less likely to have favorable attitudes toward college. Also, dissatisfaction based on academic problems was reported more frequently by those without useful vision than by those with useful vision at the time of the interview. The same difference does not appear for unfavorable comments on the social area; this seems to trouble those with partial vision as much as the totally blind. Although differences are not statistically significant, we also note that our younger interviewees tend to be more critical in the academic area, our older interviewees more critical in the social area.

4. *Attitudes Regarding Blindness*

Toward the end of our interview we asked, "Have you ever felt that blindness was an asset?" Responses to this question fall into the following patterns:

Remarks that in some ways it was an asset, possibly because it enabled the individual to relate better to his own blind clients, or because it helped him understand all people better, seeing through the surface to a deeper reality; or perhaps because it enabled the individual to concentrate better, taught him to use his time more wisely; or perhaps simply because it opened to him certain jobs which agencies regularly fill only with blind persons.

Generally neutral expressions—neither an asset nor a great handicap

Definitely negative responses, indicating that blindness is a great burden, had most unfavorable effects on the individual

Remarks indicating that while it is somewhat a handicap, this is chiefly because of some specific inconvenience, such as need to have material read, slowness in travel, etc.

In a few cases, individuals indicated that while it had certain assets, it also brought certain inconveniences

As is shown in Table 28, about 14% of our total group felt that blindness was in some ways an asset, but this feeling was expressed by a much larger percentage of women than of men. Also, the women were more inclined to minimize its importance by saying it merely presented certain inconveniences. The men were more likely to be neutral or definitely negative. Roughly 25% of the entire group expressed negative feelings, roughly 30% were neutral.

It is interesting to note that negative attitudes are expressed by equal percentages of those with some useful vision and those without it. There is a slightly greater tendency for those without useful vision to find blindness sometimes an asset, a slightly greater tendency for those with useful vision to call it an inconvenience. Neither the cause of blindness, nor the number of years of blindness, seems to have any relationship to these attitudes. Those who had to wait the longer periods between graduation and entering their professions express more negative attitudes toward blindness, are less likely to see it as an asset or even merely an inconvenience.

No relationship was found with other characteristics such as age, marital status, amount of education, etc.

5. *Attitudes Toward Remuneration and Opportunity*

Attitudes in this area are grouped under the following:

The feeling that the individual's income and professional opportunities are definitely limited because of blindness

The feeling that he is limited only because he really cannot do certain parts of the job, cannot carry some responsibilities carried by seeing persons in this job

Expression of the belief that there was no difference due to blindness

Some responded that their income was better than that of most people in this work, or said that were it not for their loss of vision they might never have received an education or had a chance at their profession

A few indicated that the income was the same as for the seeing, but they had more personal expenses, for readers, other help, etc.

Some felt that while they were paid the same in the job they had, there would be little advancement for them

A few responded that they were paid less because of the kind of employer, usually an agency—and implied that were they not blind they would be employed elsewhere

Here, again, there are no differences between the attitudes of the men and of the women (see Table 29). About 63% guess or know that they are paid the same as a seeing person in their work. About 12% feel that they are definitely limited by prejudice and often they give circumstantial evidence to support this point of view. Other types of responses are made by very small percentages of persons.

This data was cross-tabulated with all other qualities to which we thought it could possibly show a relationship and no statistically significant relationships were found. On the whole, this is encouraging at least to the extent that this seems to mean that the listed attitudes probably do realistically reflect the job situations. Or, more accurately, there is no evidence that they are biased by other aspects of the individual's history.

The very slight trends are: Those who are new to their professions feel less well paid, those without useful vision feel less well paid, while among the women (but not among the men) those who are married are more satisfied with their remuneration.

In view of the emphasis we tend to place upon independence, it may also be of interest to note that there is no difference in feelings about remuneration among those who travel independently and those who do not, or among those who use braille well and those who do not.

6. *Concern About Stereotyped Attitudes*

We asked our interviewees whether they had met, and to what extent they had been troubled by, stereotyped attitudes toward blindness. As Table 30 indicates, nearly half felt this had not been a problem for them. A few had been troubled by this in college where professors felt blind people could not take certain courses, etc. About 30% had met such attitudes when seeking employment and about the same number felt that the general public often showed over-protective attitudes, curiosity, amazement that a blind person can do anything, etc.

Those without useful vision seem more likely to encounter these problems with the general public, but when it is a matter of employment, the problem is just as great for those with some useful vision.

Here, again, it is interesting to note how little relationship these attitudes have to age, length of blindness, amount of vision, etc. These are evidently reactions to real outer stimuli, not a matter of bias within the individual himself.

7. *Attitudes Toward Putting People at Ease*

When asked whether they often felt they had to put people at ease about their blindness, and how they did it, about a quarter of our interviewees felt they rarely did this or felt a need to do it. Another quarter said they speak frankly about blindness, explain their needs, often try to make jokes about it; in some cases they also make a point

of showing what they can do, either professionally or socially, despite blindness. About 30% simply try to be at ease themselves, try to avoid dependence and take a normal place in the social group. The remainder combine these two approaches (See Table 31).

There is no significant difference between men and women in these patterns of response.

Those without useful vision feel the need to put people at ease a good bit more than do those with some useful vision, and those with residential school background are also more likely to feel this need—possibly these are the same people. Those who are married seem to feel slightly less need to put others at ease—perhaps they are less self-conscious in their relationships with others.

8. *Attitudes Toward Counseling*

Interviewees were invited to say how they felt about any counseling they had received. As we analyzed the data, we concluded that this item was worth tabulation only when the response referred to counseling by a state agency. It was so difficult to define the exact nature of other sources of counseling and there appeared to be so much variation (for example, counseling by colleges varied greatly in its depth, the kind of person giving it, etc.) that we felt it would only be misleading to tabulate attitudes related to it.

We are therefore dealing here with the responses of 148 people concerning their feelings about the state agencies, and particularly their counseling and placement.

Positive responses were given by 72% of these people. Some responded with warmth—"Excellent," "Very helpful,"—while others tempered the response but still felt quite favorable. In 13% of the responses there was a strong negative—"Did not know what to do for me," "Gave me wrong advice," etc. In 15% of the cases, the response indicated the speaker felt the agency had meant well but had accomplished little or nothing; in these cases there was little emotion but the individual obviously attributed none of his success to the agency.

Attempts to correlate these attitudes with characteristics of the interviewees show no clear statistical pattern, in part because of the small numbers in the two less favorable groups. There is a mild tendency for totally blind persons to feel most strongly negative, also those in the middle age groups. The youngest interviewees were likely to feel that intentions were good but too little was accomplished. In general, however, it would be fair to say that the negative attitudes rather clearly related to specific unfortunate experiences, or lack of fortunate ones, rather than to personal characteristics of the interviewees.

As a matter of fact, it may be foolish to make much point of these attitudes for if, in interviewing approximately 450 people, we find that only 19 feel disgruntled about the agency in their state we probably

have picked up fewer complaints than one ordinarily would about any public service. Also, the assumption that all counseling by all state agencies is the same is certainly incorrect. Probably counseling by different state agencies, and given over a considerable span of years, includes as many real differences as counseling by different colleges.

9. *Advice*

At the end of each interview, we asked the interviewee if there was some advice he would like to give to other blind people who wanted to enter professions. Although variously expressed, advice tended to fall into the following patterns:

Advice regarding education. This ranged from such generalizations as that one should get the best possible background, through the statement that the blind person should be better qualified than the seeing for the same job, to definite recommendations to get a Ph.D. Some felt the blind person should not specialize too much; that a broad education was important. Others felt that job success lay in being a specialist. Some of these differences probably depend upon the field of work.

Advice about relating to people. Many emphasized the importance of getting along with others. They felt the blind person must be flexible, that it was up to him to adjust. Many also emphasized adjusting to a *seeing* world.

Advice regarding mobility. Some felt this was very important and even mentioned the desirability of adjustment or travel training.

Advice regarding appearance, energy, etc. Many felt that good personal appearance was a must. Many said that the blind person needs more than usual energy because he will never work merely a 40 hour week, he will always have to get reading done, etc. on his own time. Some felt it was unusually important for the blind person to be able to express himself well and others pointed out the importance of developing a good memory.

Advice concerning independence and effort. Some felt that blind people can do more things than most of them think—that the important thing was to keep trying. Others pointed out the importance of independence; one should not expect others to do favors but one should be realistic about what can be done without special help. They emphasized the value of working hard, of having patience and perseverence, of trying to be better on the job than others around were.

Advice concerning basic skills. Some felt that braille, typing, etc. were very important.

Advice concerning job seeking and guidance. Some advised the careful study of the company or field of work, an effort to tailor oneself to that

company. Others said one must sacrifice at first, perhaps even be willing to start as a volunteer. Making contacts while in college was important and some felt that government offered better opportunities than did industry. Others thought self-employment was best. The need for better services to the blind, and particularly the need for more professional counseling, was often mentioned.

As Table 32 indicates, patterns of response for men and women differed very little except that the men gave more advice in the educational area and also gave greater emphasis to energy. Those with least vision emphasized the need for more education and more concern about appearance but did not differ from those with some useful vision regarding independence, mobility, and job-seeking procedures.

Cause of blindness shows no relationship with the type of advice given but there is a tendency toward increased emphasis upon getting along with people among those who have been blind longer. There is also some evidence that those who have been blind longer feel there is greater importance in both appearance and independence.

Those who were educated in non-residential schools place greater emphasis upon getting along with people, upon appearance, and upon being independent than do those from residential school backgrounds. And, in all three of these areas of advice, those who were educated as blind people (whether in residential or in non-residential schools) give larger percentages of response than do those who were educated as seeing people and lost their vision in later life. Those who use braille a lot emphasize the importance of more education and of more independence on the job, and this is also somewhat true for the more independent travelers. The effects of work experience other than that for which the person was interviewed show up chiefly in greater emphasis on getting along with people.

10. *Agency Services*

This section is presented with considerable apology since it was impossible for us to obtain complete information concerning the services provided by the various state agencies to our interviewees. The only completely accurate way to obtain this information would have been through the agency records; some states were most gracious in providing this information—and to them we are very grateful—while others felt that confidentiality of records forbade giving the information.

The data with which we finally worked was provided by the state agencies where willing, and by interviewees when they actually mentioned a service. In 123 cases, neither the agency nor the interviewee indicated that any service had been provided, and in some of these cases the interviewee definitely stated that none had been provided. The classification of services follows the standard forms for closed

case records in many states: medical, psychological, adjustment training, college and graduate school tuition, reader service, tools and equipment (including provision of a Talking Book), maintenance, counseling, and placement.

Table 33 shows the percentages of men and women to whom we know that each of these services was provided. We have no way of knowing whether this is a true random sample of the entire group or whether the percentages would materially change if information were available for all. Our information indicates that, in all but three types of service, a larger percentage of women than of men benefited. The men were provided with graduate school tuition and with readers a little more frequently, and the percentages for tools and equipment are about equal.

Cross tabulation indicates no trends related to amount of vision. Persons with some useful vision received all types of service about as frequently as did persons without helpful vision.

Persons from residential and non-residential school backgrounds received each type of service in almost exactly the same degree. There is almost no relationship between services and amount of education (i.e., persons of all amounts of education received services to the same degree) except that placement is reported most frequently for those whose education ended with four years of college, least for those with doctoral or law degrees. And naturally, the older interviewees reported less of all types of service than did the younger ones. It is also interesting to note that persons who had to wait five or more years to get into their professions tend to have received less of all types of service; indeed, more than a third of those who received no service (to our knowledge), fall into this group which had to wait so long for career opportunity.

CHAPTER VII

SUMMARY

In order to produce the manual, "Placing Blind and Visually Handicapped Persons in the Professions," compiled by Bauman and Yoder on the basis of field interviews done in 1960, considerable information was collected concerning blind persons in professional work. The present volume reports data concerning the personal characteristics and attitudes of 434 blind people who were successful in the professions or in responsible business positions. Both the original study and the present additional data analysis were done under a grant from the Vocational Rehabilitation Administration to the Pennsylvania Office for the Blind.

This report first describes the 91 women and 343 men interviewed, and some effort is made to determine how nearly these people resemble comparable groups of seeing professional workers or of blind persons of employable age. It is of course recognized that our group does not resemble a cross section of the total blind population since the latter includes a very much larger percentage of older persons. Since the study of "Adjustment to Blindness"[1] seemed to present the most nearly comparable data, it will be used to represent a cross section of blind persons of employable age.

Our interviewees represent almost half of the total number of names submitted to the research director from all sources, including public and private agencies, schools for the blind, and referrals from interviewees themselves. For 85% of the group, the current place of residence is a city, defined as a place with more than 25,000 population. This percentage is larger than would be found in the general population and it is also larger by about 25% than the proportion of city dwellers in the Adjustment Study. This is certainly in part the result of selection, but it probably is true that professional people, seeing and blind, tend to be found in cities. The nature of their work often requires them to function in centers of population.

The basic procedures used in treating the raw data were distributions and cross-tabulations which were analyzed to show similarities and differences between various subgroups. This summary will show, in brief form, those relationships which seem to have some significance

[1] Bauman, Mary K. Adjustment to blindness: a study as reported by the Committee to Study Adjustment to Blindness. Harrisburg: Pennsylvania State Council for the Blind, 1954.

either statistically or in terms of traditional concepts about blind people, relationships which are, of course, described more fully in the body of the report. Many, many tabulations are not mentioned in this report at all because no significant relationships were found but we wish to assure the reader that in every case where there was the least possibility of some relationship the cross-tabulation was done; all of these could not be mentioned individually without burdening the report with repetitious statements of negative findings.

Description of the Group

Marital status:	Men strongly resemble men in the general population, with 71% married.	Women, with 22% married, show a much higher proportion of single individuals than is found either in the general population or in any comparable group of working women on whom statistics were available.
Age:	Both men and women vary around the mean age of 40.	
Vision:		
Amount—	Men include a higher percentage without useful vision—70.8%	Women include only 57.1% without useful vision
Age of loss—	Men include 25.4% born blind 12.6% with loss between ages 20 and 30	Women include 40.7% born blind 6.6% with loss between ages 20 and 30
Cause of loss—	20.1% with loss due to trauma 27.4% blind from congenital causes	6.6% with loss due to trauma 44.0% blind from congenital causes
Date of loss—	34.7% blinded since 1940	20.8% blinded since 1940
Length of time blind—	32.1% blind 20 or less years	19.7% blind 20 or less years
Schooling:	All pre-college training before loss of vision Men—36.5% Women—19.8% Educated chiefly in residential schools Men—36.1% Women—50.6% Completed education through doctoral or law degrees Men—32.3% Women—3.3%	
Counseling:	No real differences between men and women. Interesting to note that none of those who, as blind people, attended	

schools for seeing children reported counseling from such schools.

Length of professional experience: No significant differences between men and women. The group is divided almost equally between those with more than 10 years of professional experience as blind persons and those with less than 10 years experience.

Travel:

Beyond local area	— Men 40.3%	Women 22.0%
Use cane	— Men 41.1%	Women 26.4%
Use guide dog	— Men 15.4%	Women 24.2%
Use travel vision	— Men 25.4%	Women 35.2%

Reading:

Extensive braille	— Men 58.3%	Women 71.4%
Some ink print	— Men 22.5%	Women 36.3%

Men are more likely than women to report unusual and complex braille filing systems, specialized note-taking procedures, braille labels, etc. Less than 20% found it possible to handle their professional responsibilities without some effective form of record-keeping.

Aids and Assistance: Use of a variety of "gadgets" was reported by both men and women with some form of recording or dictating equipment much the most frequently reported.
Human assistance was often reported, with some form of reading or record-keeping most frequent.
Roughly one-fourth use drivers, at least at times, in pursuit of their work.
No significant differences between men and women on these points.

Membership in Organizations: No significant differences between men and women. Membership in professional organizations was reported by 72%, community groups 40%, organizations for the blind 34%. Less than 10% reported no group membership.

Relationships Between Age at Time of Interview and Other Characteristics

Younger more likely to have attended integrated classes in public schools

Older more likely to have attended residential schools.

No differences in amount of education but since younger interviewees often spoke of going on for advanced degrees they probably will eventually show a higher percentage of doctoral level degrees.

Younger more likely to report social difficulties in school.

Older more likely to report academic difficulties in school.

At the college level, both younger and older interviewees were likely to indicate academic, rather than social, problems.

Younger reported much more counseling from all sources.

Younger were established in their professions at earlier ages.

No relationships between age and travel habits, use of braille, or participation in organized groups.

Relationships Between Marital Status and Other Characteristics

Some evidence that those who are born blind or lose vision early in life are less likely to marry, and this is true for both men and women.

Those who report sudden loss of vision are more likely to become married than are those who report gradual loss, but this is true only of the men.

No relationship between type of schooling (residential or integrated) and marital status.

Relationships Between Amount of Vision and Other Characteristics

For those without useful vision at time of interview, cause of blindness scatters without significant differences.

For those with useful vision at time of interview, congenital loss and gradual loss from non-traumatic causes dominate, and this is true for both men and women.

Residual vision plays only a small part in determining whether a child is sent to residential school or retained in integrated classes.

Those without useful vision weight the two ends of the scale measuring amount of education: 86% of those who never completed college and 88% of those with doctoral level degrees (compared with the 68% to be expected on the basis of the number with this amount of vision in the total group).

Amount of vision shows no relationship to amount of travel but does, of course, relate to use of cane or dog guide vs. use of travel vision. Also, naturally, extensive use of braille is reported chiefly by those without enough vision to read print under any circumstances.

Relationships Between Age of Loss of Vision and Other Characteristics

Very little relationship between age at which vision is lost and nature of schooling (residential or integrated).

Those most likely to travel widely are those losing vision during their twenties; those with earlier or later loss travel less widely.

Those with early loss of vision are most likely to use braille extensively.

No relationship between age of loss and membership in organized groups, including lack of evidence that loss early in life is more likely to incline the individual toward membership in groups for the blind.

No relationships between number of years as a blind person and other characteristics except that the very recently blinded travel less widely, make less use of braille and gadgets and have not yet become members of organizations for the blind.

Relationships Between Educational Factors and Other Characteristics

For those with visual loss during the 1940's, 58% had schooling in integrated classes, 42% in residential schools.

For those with visual loss during the 1930's, 43% had schooling in integrated classes, 57% in residential schools.

For those with visual loss before 1930, 32% had schooling in integrated classes, 68% in residential schools.

Problems reported by those educated in integrated classes are chiefly academic.

Problems reported by those educated in residential schools are chiefly social.

Nature of schooling (integrated or residential) shows no relationship to obtaining advanced degrees.

Those who report academic problems in secondary school tend not to go on to advanced degrees but reporting of problems in college shows no relationship to advanced degrees.

Those with advanced degrees are more likely to be members of professional organizations, somewhat more likely to be leaders in those groups.

Concern about social problems is more likely to appear at the secondary school level than at the college level where most of the problems reported are academic. The person who reports social problems at the secondary school level is very likely to report academic problems at the college level.

Relationships Between Counseling and Other Characteristics

Counseling from all sources is much more likely to be reported by persons under 40 years of age, while those over 60 almost never mention it.

Amount of remaining vision shows no relationship to source of counseling.

Age of loss of vision does show relationships to source of counseling but only because those whose loss occurred after the school or college years would naturally not have received counseling from those institutions.

Persons counseled by public agencies, including Veterans Administration, are more likely to have advanced degrees than are those counseled by private agencies or those with no counseling.

Relationships Between Years of Professional Experience (as a Blind Person) and Other Characteristics.

The chief finding here is the natural one that persons who have been longer established in their professions are more likely to be leaders in professional organizations.

Changes in Goal

Nearly half of the group had never seriously considered any career field other than the one in which they were interviewed. However, 195 people had made one definite change in goal and 33 had made two or more changes.

Changes in career choice were most frequently motivated by changes in vision or the realization that the amount of vision was not adequate for success in the originally chosen profession; by new interests; by financial and status motives, and by inability to get into the profession first chosen.

Characteristics Relating to Professional Fields

Most youthful—mathematicians and psychologists	Largest number of older persons—the medical fields
Largest percentages with useful vision—scientists, teachers, rehabilitation workers and those in the verbal arts	Smallest percentages with useful vision— home teachers, business, and clergy.
All professions include at least one person who was born blind	Musicians have the largest percentage who were born blind and no one who lost his vision later than the teens.
	Medical fields have the largest percentage who lost vision late in life.
No one who lost his vision prior to 1920 went into mathematics, psychology, science and engineering	
Science and engineering, mathematics, and psychology include rather high percentages with pre-college, or even college training as seeing people.	All of those in music were educated as blind people, 73% of them in residential schools.
	Residential schools also educated more than half of the home teachers, 45% of the clergy, social workers, and medical workers.
Show least concern about independent travel—mathematicians, engineers, psychologists and college teachers	Show most concern about independent travel—rehabilitation workers
Least likely to belong to organized groups—mathematicians and engineers	Most likely to belong to organized groups—social workers, home teachers, rehabilitation workers
Least likely to have other work experience—lawyers and musicians	Most likely to have other work experience—rehabilitation workers

Relationships Between Attitudes and Other Characteristics

Attitudes	*Residential schools*	*Integrated classes*
Generally favorable, including praise for academic training	66.5%	63.9%
Praise for specialized training	29.9%	11.3%
Praise for social experiences	9.5%	20.6%
Criticism of social experiences	21.3%	5.7%

Residential schools were more likely to be criticized by those who had social problems in college

Integrated classes were more likely to be criticized by those who had academic problems in college

Attitudes toward college:

About 70% express favorable attitudes toward college regardless of whether they come from residential or integrated class backgrounds.

Those who reported problems *before* college are more likely to have unfavorable attitudes toward their college experiences.

Academic problems at the college level are more likely to be reported by those without useful vision, social problems are reported equally by those with and those without useful vision.

Attitudes toward blindness:

Although one-fourth of the group expressed definitely negative attitudes toward blindness, 14% saw it as, in some ways, an asset.

Negative attitudes are as characteristic of those with some useful vision as of those with none.

Cause of blindness and number of years as a blind person show no relationship to these attitudes but those who had to wait a long time to enter their professions are more likely to be negative than are those who became established quickly.

Attitudes toward salary and opportunities for advancement:

About 63% feel there is no difference between them and seeing persons while 12% believe they are definitely limited by prejudice concerning blindness.

Stereotyped attitudes:

Nearly half the group felt they had never been seriously troubled by stereotyped attitudes toward blindness. A few had experienced limitations in college where they were not allowed to take certain courses.

Nearly 30% had had unpleasant experiences with the public (over-protective attitudes, curiosity, etc.) and slightly more than 30% experienced stereotyped rejection in the employment situation.

With regard to putting people at ease, the group divides into four almost equal parts:

Those who feel no need to put others at ease,

Those who accomplish this by speaking frankly of blindness, even making jokes about it, or making a point of showing what they can do despite it,

Those who simply try to be at ease themselves,

And those who combine the last two procedures.

Those without useful vision and those from residential schools are most likely to feel the need to put others at ease (possibly because they are less at ease themselves).

Attitudes toward counseling by public agencies:

Favorable in 72% of the responses

Definitely negative in 13%

Advice

In offering advice to other blind people who might seek professional careers, men and women differed very little. Those with least vision emphasized the

need for more education and concern about appearance. Those who have been blind longer tend to emphasize getting along with people, appearance and independence, and this is also true for those from non-residential school backgrounds. The areas most emphasized by all interviewees were relating to people, independence and effort, appearance and energy, and getting a good education.

Agency Services

Information for this area was incomplete but the evidence is that services are offered equally to persons of all amounts of vision and from all types of school background. Effectiveness of service seems to be reflected in the fact that those who had to wait longest to become established in their professions received least service.

Comment

Many of the above statistics speak for themselves. However, we would like to add certain notes and comments.

The fact that so large a percentage of women in this study are single is probably related not to their professional status but to their blindness. The few figures available to us regarding sighted women in professional work do not parallel our high percentage of single persons whereas in the Adjustment Study 70% of the employed women were single and 63% of all the women in that study were single.

The fact that a larger percentage of women than of men was educated in residential schools does not seem related to sex differences but, rather, to the fact that so many of the men lost their vision after high school age. For men and women whose visual loss occurred early in life about the same percentage attended residential schools.

When compared on the basis of present age of interviewees, or on the basis of date of loss of vision, the changes in percentage attending residential schools vs. those attending integrated classes seems to reflect a steady trend toward the latter. This is, of course, consistent with the experience of all workers in this field.

The probability that younger members of our group will, eventually, show a higher percentage of advanced degrees than do the older members of the group is consistent with the general trend toward higher degrees in all professions. It may to some extent reflect federal and state provisions for educating blind students, but it also reflects the trend of the times, as it were.

Also, the increased counseling service evident in the histories of the younger interviewees seems to reflect not only the greater availability of such service through public agencies but also the generally increased offering of counseling to seeing persons, both students and adults. It is significant that our younger interviewees reported more counseling from all sources not just from agencies.

We may congratulate ourselves that one measure of the success of this counseling is found in the evidence that our younger interviewees

were established professionally at an earlier age than were the older members of the group. However, we must keep in mind that individuals still not successfully placed could not have been included in our study. We hope that organized counseling services are indeed making a real contribution to early placement but we must not overlook the fact that this particular study has no way of accounting for those still unplaced. Some evaluation of this group and their problems should have early consideration as further research is planned.

Although it may be regarded as negative, as a lack of findings, there is actually one striking element in our results: the fact that no characteristic, no quality we can reach through the interviews, is tied completely to any single cause. Those who have some remaining vision and those who have none, those who are young and those in their later years, those with four years of college and those with doctoral degrees, those with counseling and those with none, have all succeeded in a great variety of work, in many social and professional organizations, and in developing very well adjusted attitudes.

If one were to make any division at all, one might say that as a group the women seem closer to the old stereotype of a blind person, with their heavy weighting of the congenitally blind, their tendency to remain single, to travel less, to be graduates of residential schools and to find work in the occupations more traditionally associated with blind people. As a group the men are more likely to be in unusual occupations, especially science, mathematics and psychology where few blind people were found a decade or two ago. The men are highly educated, show wide interests including politics and professional leadership. The men seem pretty much to have crossed the traditional barriers to lead very full lives. But some of the women have achieved this too, while some of the men are certainly in the traditional fields —so not even these characteristics split clearly along any line.

Shall we not conclude, then, that none of the characteristics we can count, such as amount of vision, amount of education, cause of visual loss, etc., makes the difference between success and failure. If it were possible (and we very much wish it were possible) to study an equal number of blind persons who have not succeeded we would probably find the same proportions with these basic life characteristics.

What has made the difference? What do these people have that brought success to them. Or should we say, rather, what do these people have that took them to success? For their stories show that success rarely *came*—they pursued it with dogged persistence, through years of effort, in the face of unnumbered rebuffs.

Certainly the old notions of things blind people *cannot* do are exploded by this group. Some of them admit that they fought to cross the barriers to prove that they could, but a very large number simply decided what they wanted to do with their lives and went firmly ahead to do it. Most of them would probably agree that what made their

success was persistence, ingenuity, concern for every detail, high standards, and a lot of very hard work. They would not expect particular praise for these qualities—they would say they *had* to have them.

Their major problems lay in getting information, particularly professional information, and in dealing with the misunderstanding, curiosity, and rejection so often marking their relationships with the public, with colleges, and with employers and clients, but they complain very little about these problems. Many praised the research project and said they wished similar information had been available when they started upon their careers; but it was characteristic of them that they spent little time regretting what had not been. They were too busy looking toward a greater future yet to be.

EPILOGUE

The Human Side

The writing of this book has been a strange experience and in some ways a very frustrating one. Many people deserve recognition for the assistance they have given and the author would like to break with custom to write, in the first person, the gratitude she feels.

I should first like to say a very big "thank you" to the staff of the Pennsylvania Office for the Blind and especially to its Commissioner, Dr. Norman Yoder. As always, it has been an inspiring experience to work with him and his organization. For both tangible assistance and for patience in bearing with me through the past months, I wish to express gratitude to my own staff and especially to my partner. Equally long suffering, my husband certainly deserves equal expression of thanks. And for their generous advice, I would like to add a note of appreciation for the Committee for Research on Problems Associated with Blindness.

However, in a way, my greatest gratitude goes to the more than four hundred blind people about whom this book is written, and with my gratitude goes an apology. I started this section by saying that the writing of this report has been a frustrating experience. The frustration arises from the fact that I feel I have lost the people in the statistics, and I have not known what to do about it.

At the end of the last chapter I asked what had made the difference between success and failure for these people. Those of us who had the great privilege of listening to the recordings on which this study is based felt that we knew what made that difference. But it is an elusive quality, not subject to counting or graphing. One might call it intangible, yet one is constantly aware of it in the recordings, coming through many voices, from all parts of the country. Shall we call it "character?" Perhaps that is as good a word as any.

So, to you who made possible the writing of both this book and "Placing the Blind and Visually Handicapped in Professional Occupations," I say a heartfelt "thank you." But the gratitude is not really for your contribution to science, not for your sharing of experience with others. It is quite simply my personal thank you for the wonderful privilege of knowing you.

TABLES

TABLE 1. *Number of Interviewees Compared with Number of Names Available in Each Professional Field.*

	Female			Male			Total		
	Available names	Number interviewed	Percent interviewed of total	Available names	Number interviewed	Percent interviewed of total	Available names	Number interviewed	Percent interviewed of total
Mathematicians				11	9	81.8	11	9	81.8
Scientists—Engineers				21	15	71.4	21	15	71.4
Lawyers, judges, etc.				91	52	57.1	91	52	57.1
Clergy				22	9	40.9	22	9	40.9
Psychologists				15	13	86.7	15	13	86.7
College teachers	2	2	100.0	49	31	63.3	51	33	64.7
Other teachers in schools (not music)	59	25	42.4	65	29	44.6	124	54	43.5
Home teachers	32	12	37.5	19	2	10.5	51	14	27.5
Social workers	53	16	30.2	49	17	34.7	102	33	32.3
Rehabilitation workers	6	1	16.7	87	46	52.9	93	47	50.5
Medical arts	10	7	70.0	66	36	54.6	76	43	56.6
Musicians and music teachers	22	10	45.5	47	16	34.0	69	26	37.7
Verbal arts	11	9	81.8	22	12	54.6	33	21	63.6
Business and administration	17	9	52.9	112	56	50.0	129	65	50.4
Total	212	91	42.9	676	343	51.5	888	434	48.8

TABLE 2. *Place of Residence.*

Place of Residence	Number of Available Names	Number Interviewed	Percentage Interviewed
City	686	369	53.8%
Town	186	64	34.4%
Rural	16	1	6.3%
Total	888	434	48.8%

TABLE 3. *Marital Status.*

	Single		Married		Widowed, Separated, or Divorced		Totals	
	N	%	N	%	N	%	N	%
Blind								
Male	91	26.5	244	71.1	8	2.4	343	100.0
Female	67	73.6	20	22.0	4	4.4	91	100.0
Total	158	36.4	264	60.8	12	2.8	434	100.0
Total Seeing*								
Male		25.9		68.8		5.2		
Female		19.4		65.3		15.3		
Public School Teachers**								
Male		17.3		80.5		2.2		
Female		24.6		62.4		13.0		
Total		22.3		68.0		9.7		
Employed Women*		23.4		60.4		16.2		

* Figures from 1960 census.
** Figures from *The American Public-School Teacher, 1960-61.* Research Monograph 1963-M, National Education Association, 1963.

TABLE 4. *Age at Time of Interview.*

	Female		Male		Total	
Age	N	%	N	%	N	%
20–24	4	4.4	2	.6	6	1.4
25–29	9	9.9	35	10.2	44	10.1
30–34	15	16.5	54	15.7	69	15.9
35–39	12	13.2	59	17.2	71	16.4
40–44	11	12.1	51	14.9	62	14.3
45–49	15	16.5	44	12.8	59	13.6
50–54	10	10.9	27	7.9	37	8.5
55–59	7	7.7	22	6.4	29	6.7
60–64	5	5.5	34	9.9	39	9.0
65–69	2	2.2	8	2.3	10	2.2
70–74	1	1.1	2	.6	3	.7
75–79			3	.9	3	.7
80–84			2	.6	2	.5
Total	91		343		434	
Mean	42.35		43.55		43.34	
Sigma	11.20		12.15		12.10	

TABLE 5. *Amount of Vision.*

	Female		Male		Total	
	N	%	N	%	N	%
Totally blind	41	45.0	184	53.6	225	51.8
Light perception or projection only	11	12.1	59	17.2	70	16.1
Travel vision only	6	6.6	23	6.7	29	6.8
Some reading of ink print	16	17.6	44	12.9	60	13.8
Frequent use of ink print	17	18.7	33	9.6	50	11.5
Totals	91	100.0	343	100.0	434	100.0

TABLE 6. *Age at Loss of Vision.*

	Female		Male		Total	
	N	%	N	%	N	%
Born Blind	37	40.7	87	25.4	124	28.6
0–4 yrs.	14	15.3	28	8.2	42	9.7
5–9	7	7.7	40	11.7	47	10.8
10–14	9	9.9	31	9.0	40	9.2
15–19	6	6.6	45	13.1	51	11.7
20–24	2	2.2	33	9.6	35	8.1
25–29	4	4.4	24	7.0	28	6.4
30–34	4	4.4	23	6.7	27	6.2
35–39	2	2.2	13	3.8	15	3.5
40–44	2	2.2	8	2.3	10	2.3
45–49	1	1.1	2	.6	3	.7
50–54	1	1.1	2	.6	3	.7
55+	2	2.2	7	2.0	9	2.1
Total	91	100.0	343	100.0	434	100.0

TABLE 7. *Date of Loss of Vision.*

	Female		Male		Total	
	N	%	N	%	N	%
To 1899	2	2.2	10	3.0	12	2.8
1900–1909	7	7.7	21	6.1	28	6.4
1910–1919	16	17.6	46	13.4	62	14.3
1920–1929	22	24.2	66	19.2	88	20.3
1930–1939	25	27.5	81	23.6	106	24.4
1940–1949	11	12.0	78	22.7	89	20.5
1950–1959	8	8.8	41	12.0	49	11.3
Totals	91	100.0	343	100.0	434	100.0
Before 1940	72	79.1	224	65.3	296	68.2
1940–1959	19	20.9	119	34.7	138	31.8
Totals	91	100.0	343	100.0	434	100.0

TABLE 8. *Number of Years Blind.*

Years	Female		Male		Total	
	N	%	N	%	N	%
0–9	7	7.7	38	11.1	45	10.4
10–19	11	12.0	72	21.0	83	19.1
20–29	24	26.4	74	21.6	98	22.6
30–39	23	25.3	73	21.3	96	22.1
40–49	13	14.3	50	14.6	63	14.5
50–59	10	11.0	24	6.9	34	7.8
60+	3	3.3	12	3.5	15	3.5
Total	91	100.0	343	100.0	434	100.0
To 19 yrs.	18	19.8	110	32.1	128	29.5
20+	73	80.2	233	67.9	306	70.5
Total	91	100.0	343	100.0	434	100.0

TABLE 9. *Cause of Blindness.*

	Female		Male		Total	
	N	%	N	%	N	%
Congenital	40	44.0	94	27.4	134	30.9
Trauma (other than war-blinded)	6	6.6	38	11.1	44	10.1
War-blinded			31	9.0	31	7.2
Non-traumatic (sudden loss)	9	9.9	70	20.4	79	18.2
Non-traumatic (gradual loss)	36	39.5	99	28.9	135	31.1
Unknown			11	3.2	11	2.5
Total	91	100.0	343	100.0	434	100.0
Congenital, Non-Traumatic-Gradual	76	83.5	193	58.1	269	63.6
Other	15	16.5	139	41.9	154	36.4
Total	91	100.0	332	100.0	423	100.0

TABLE 10. *Nature of Schooling.*

School Experience*	Female		Male		Total	
	N	%	N	%	N	%
0			1	.3	1	.2
1	15	16.5	74	21.6	89	20.5
2	3	3.3	51	14.9	54	12.6
3	2	2.2	15	4.5	17	3.9
4	12	13.2	42	12.8	54	12.6
5	19	20.8	38	10.5	57	13.1
6	3	3.3	23	6.7	26	6.0
7	2	2.2	12	3.5	14	3.2
8	32	35.2	68	19.8	100	23.0
9	3	3.3	19	5.4	22	5.1
Total	91	100.0	343	100.0	434	100.0

* For definition of groups, see text.

TABLE 11. *Size of College.*

	Female		Male		Total	
	N	%	N	%	N	%
No College	2	2.2	21	6.1	23	5.3
Large University Co-educational	15	16.5	90	26.2	105	24.2
Medium University Co-educational	8	8.8	41	12.0	49	11.2
Large College Co-educational	5	5.5	13	3.8	18	4.2
Medium College Co-educational	7	7.7	21	6.1	28	6.5
Small College Co-educational	25	27.4	61	17.8	86	19.8
Large College Not Co-educational	2	2.2	4	1.2	6	1.4
Medium College Not Co-educational	4	4.4	9	2.6	13	3.0
Small College Not Co-educational	14	15.4	25	7.3	39	9.0
Attended College As Seeing Person	9	9.9	58	16.9	67	15.4
Total	91	100.0	343	100.0	434	100.0

TABLE 12. *Amount of Education.*

	Female		Male		Total	
	N	%	N	%	N	%
Less Than High School	1	1.1	2	.6	3	.7
High School Only			9	2.6	9	2.1
High School Special	3	3.3	13	3.8	16	3.7
Some College	2	2.2	17	5.0	20	4.6
College Graduate	26	28.6	65	19.0	91	20.9
College Plus	30	32.9	49	14.3	78	18.0
M.A. or M.S.	26	28.6	77	22.4	103	23.7
Doctors or Law	3	3.3	105	30.6	108	24.9
Doctors or Law Plus			6	1.7	6	1.4
Total	91	100.0	343	100.0	434	100.0

TABLE 13. *Source of Counseling.*

	Female		Male		Total	
	N	%	N	%	N	%
State Agency	51	56.0	111	32.4	162	37.3
Veterans Agency			28	8.2	28	6.5
Private Agency	6	6.6	19	5.4	25	5.8
School for Seeing (Client blind)						
School for Blind	20	22.0	44	12.8	64	14.7
College	12	13.2	55	16.0	67	15.4
Friends and Relatives	1	1.1	18	5.2	19	4.4
Other Professional People	1	1.1	10	2.9	11	2.5
Another Person in Field of Choice	9	9.9	54	15.7	63	14.5
No counseling	15	15.4	91	26.5	106	24.4

Note: Percentages are based on N for Female, Male and Total groups. Since some received counseling from more than one source, percentages will not total 100.

TABLE 14. *Years Between Graduation and Entering Profession.*

	Female		Male		Total	
	N	%	N	%	N	%
Before Training Was Completed	15	16.4	33	9.6	48	11.1
0–5 months	22	24.2	106	30.9	130	30.0
6-11 months	11	12.1	32	9.3	43	9.8
12–23 months	11	12.1	34	9.9	45	10.4
2-4 years	9	9.9	25	7.3	34	7.7
5–9 years	4	4.4	24	7.0	28	6.5
10–14 years	2	2.2	3	.9	5	1.2
15–19 years	2	2.2			2	.5
20 or more	1	1.1	2	.6	3	.7
Does Not Apply	14	15.4	84	24.5	96	22.1
Total	91	100.0	343	100.0	434	100.0

TABLE 15. *Age of Entering Profession.*

	Female		Male		Total	
Age	N	%*	N	%*	N	%*
–21	2	2.3	15	5.1	17	4.5
21–23	15	17.4	31	10.6	46	12.1
24–26	32	37.2	82	28.1	114	30.1
27–29	12	15.1	64	21.8	76	20.1
30–32	8	9.3	39	13.3	47	12.4
33–35	5	5.8	26	8.9	31	8.2
36–38	4	4.7	13	4.4	17	4.5
39–41	4	4.7	8	2.7	12	3.2
42 plus	4	4.7	15	5.1	19	5.0
Not Apply	5		50		55	

* Percentages based on the number who were blind at the time of entering their professions.

TABLE 16. *Other Work Experience.*

	Female		Male		Total	
	N	%	N	%	N	%
No other work experience, seeing or blind	39	42.9	78	22.7	117	27.0
Unrelated, seeing; none blind	2	2.2	29	8.5	31	7.1
Related, seeing; none blind	7	7.7	28	8.1	35	7.9
None seeing; unrelated blind	12	13.2	81	23.6	93	21.4
Unrelated seeing; unrelated blind			12	3.5	12	2.8
Related seeing; unrelated blind	1	1.1	1	.3	2	.5
None seeing; related blind	27	29.7	100	29.2	127	29.3
Unrelated seeing; related blind	1	1.1	4	1.2	5	1.2
Related seeing; related blind	2	2.2	10	2.9	12	2.8
Related experience, seeing	10	11.0	39	11.4	49	11.3
Related experience, blind	30	33.0	114	33.2	144	33.2
Unrelated experience	16	17.6	128	37.3	144	33.2

TABLE 17. *Years in Profession as Blind Person.*

	Female		Male		Total	
Years	N	%	N	%	N	%
0–4	19	20.9	76	22.1	95	22.0
5–9	26	28.5	78	22.7	104	23.9
10–14	16	17.6	71	20.7	87	20.0
15–19	13	14.3	44	12.8	57	13.1
20–24	8	8.8	27	7.9	35	8.1
25–29	4	4.4	13	3.8	17	4.0
30–34	3	3.3	15	4.4	18	4.1
35–39	2	2.2	16	4.7	18	4.1
40–44			2	.6	2	.5
45-plus			1	.3	1	.2
Total	91	100.0	343	100.0	434	100.0
0–9	45	49.4	154	44.9	199	45.9
All Others	46	50.6	189	55.1	235	54.1

TABLE 18. *Total Years in Profession.*

Years	Female		Male		Total	
	N	%	N	%	N	%
0–4	19	20.88	66	19.2	85	19.6
5–9	20	21.98	67	19.5	87	20.1
10–14	19	20.88	70	20.4	89	20.5
15–19	14	15.38	43	12.5	57	13.1
20–24	8	8.79	31	9.0	39	9.0
25–29	4	4.40	19	5.5	23	5.3
30–34	3	3.30	19	5.5	22	5.0
35–39	2	2.20	18	5.3	20	4.6
40–44			6	1.8	6	1.4
45+	2	2.20	4	1.3	6	1.4
Total	91	100.0	343	100.0	434	100.0

TABLE 19. *Amount of Travel.*

	Female		Male		Total	
	N	%	N	%	N	%
None (office in home)	6	6.6	8	2.3	14	3.2
To and from work only	32	35.1	65	18.9	97	22.3
Occasional in own area	11	12.1	59	17.2	70	16.1
Frequent in own area	22	24.2	73	21.3	95	22.0
Occas. distant familiar	1	1.1	19	5.6	20	4.6
Frequent dist. familiar	4	4.4	26	7.6	30	6.9
Occas. distant unfamiliar	4	4.4	51	14.9	55	12.7
Frequent dist. unfamiliar	11	12.1	42	12.2	53	12.2
Total	91	100.0	343	100.0	434	100.0

TABLE 20. *Mode of Travel.*

Mode*	Female		Male		Total	
	N	%	N	%	N	%
1	23	25.3	71	20.7	94	21.7
2	3	3.3	10	2.9	13	3.0
3	6	6.6	6	1.8	12	2.8
4	14	15.4	106	30.9	120	27.6
5	10	11.0	35	10.2	45	10.4
6	12	13.2	32	9.3	44	10.1
7	10	11.0	21	6.1	31	7.1
8	13	14.2	59	17 2	72	16.6
9			3	0.9	3	0.7
Total	91	100.0	343	100.0	434	100.0
4–5	24	26.4	141	41.1	165	38.1
All Others	67	73.6	202	58.9	269	61.9

* For definition of groups, see text.

TABLE 21. *Use of Braille.*

	Female		Male		Total	
	N	%	N	%	N	%
None	17	18.7	74	21.6	91	21.1
Occasional	9	9.9	51	14.9	60	13.8
Reads only			18	5.2	18	4.1
Reads, takes notes	7	7.7	48	14.1	55	12.7
Constant use in files, reading	33	36.2	88	25.6	121	27.8
Writes or teaches braille	25	27.5	64	18.6	89	20.5
Total	91	100.0	343	100.0	434	100.0

TABLE 22. *Use of "Gadgets" or Aids.*

	Female		Male		Total	
	N	%	N	%	N	%
None used	22	24.1	100	29.2	122	28.1
Non-technical aids	4	4.4	13	3.8	17	3.9
Recording equipment	37	40.7	166	48.4	203	46.8
Standard technical aids	19	20.9	41	12.0	60	13.8
Individually devised technical aids	8	8.8	30	8.7	38	8.8
Calculators (braille notation)	1	1.1	7	2.0	8	1.8
Visual aids	19	20.9	62	18.1	81	18.6

Note: Percentages are based on the number of men and women in the study. Since one individual often used a number of aids, percentages will not total 100.

TABLE 23. *Assistance on the Job.*

	Female		Male		Total	
	N	%	N	%	N	%
None beyond what seeing would have	18	19.8	22	6.4	40	9.2
Reading by member of family	13	14.3	122	35.6	135	31.1
Reading by paid aid, secretary, etc.	36	39.6	236	68.8	272	62.7
Reading by volunteer outside family	24	26.4	72	20.9	96	22.1
Calculations or technical aids (graphs, etc.)	4	4.4	19	5.5	23	5.3
Travel other than driving	1	1.1	8	2.3	9	2.1
Driver	24	26.4	75	21.9	99	22.8
Keeping records, reading & interpreting records	29	31.9	111	32.4	140	32.3
Identification of or description of people, objects, processes, etc.	17	18.7	43	12.5	60	13.8

TABLE 24. *Group Activity.*

	Female		Male		Total	
	N	%	N	%	N	%
Professional Organization						
Member only	51	56.0	171	49.9	222	51.1
Leader	9	9.9	81	23.6	90	20.7
Total	60	65.9	252	73.5	312	71.9
Organizations for the Blind						
Member only	27	29.7	55	16.0	82	18.9
Leader	11	12.1	54	15.7	65	15.0
Total	38	41.8	109	31.7	147	33.9
Community Organizations						
Member only	24	26.4	75	21.9	99	22.8
Leader	6	6.6	70	20.4	76	17.5
Total	30	33.0	145	42.3	175	40.3
None	15	16.5	35	10.2	50	11.5

Note: Percentages are based on the number of men and women in the study. Since one individual often was a member of several types of groups, percentages will not total 100.

TABLE 25. *Attitudes Toward Residential Schools.*

Attitudes	Female		Male		Total	
	N	% of number attending	N	% of number attending	N	% of number attending
Generally satisfactory	21	39.6	69	41.1	90	40.7
Good academic training	13	24.5	44	26.2	57	25.8
Poor academic training	2	3.8	7	4.2	9	4.1
Good effects socially or on personal adjustment	8	15.1	13	7.7	21	9.5
Bad effects socially or on personal adjustment	8	15.1	39	23.2	47	21.3
Good specialized training	21	39.6	45	26.8	66	29.9
Omitted some non-academic training	3	5.7	8	4.9	11	5.0
Poor guidance and counseling	1	1.9	5	3.0	6	2.7
Expressed wish had gone to other type school, or did transfer	3	5.7	11	6.5	14	6.3
Did not attend residential school	38	....	175	....	213	....

TABLE 26. *Attitudes Toward Non-Residential Schools.*

Attitudes	Female		Male		Total	
	N	% of number attending	N	% of number attending	N	% of number attending
Generally satisfactory	17	56.7	66	60.0	83	58.9
Good academic training	2	6.7	5	4.5	7	5.0
Poor academic training			3	2.7	3	2.1
Good effects socially or on personal adjustment	5	16.7	24	21.6	29	20.6
Poor effects socially or on personal adjustment	1	3.3	7	6.3	8	5.7
Good specialized training	3	10.0	13	11.7	16	11.3
Omitted some non-academic training	3	10.0	4	3.2	7	5.0
Expressed wish had gone to other type school, or did transfer	2	6.7	1	.9	3	2.1
Did not attend or did not attend as blind person	61	....	232	....	293	....

TABLE 27. *Attitudes Toward College.*

Attitudes	Female		Male		Total	
	N	% of number attending	N	% of number attending	N	% of number attending
Generally satisfactory	51	67.1	187	70.8	238	70.0
Had academic problems, trouble with readers, felt poorly prepared	9	11.8	41	15.5	50	14.7
Had social problems	6	7.9	25	9.4	31	9.1
Had mobility problems	9	11.8	8	3.0	17	5.0
Did not attend, or did not attend as blind person	15	....	79	....	94	....

TABLE 28. *Attitudes Regarding Blindness.*

Attitudes	Female N	Female % of 91	Male N	Male % of 343	Total N	Total % of 434
In some ways an asset	25	27.5	37	10.8	62	14.3
Neutral	17	18.7	113	32.9	130	30.0
A definite burden, complaining, negative	16	17.6	95	27.7	111	25.5
Just a general handicap or troubling chiefly because of some specific inconvenience	20	22.0	49	14.3	69	15.9
In some ways an asset but also often inconvenient	13	14.3	49	14.3	62	14.3

TABLE 29. *Attitudes Toward Remuneration and Opportunity.*

Attitudes	Female N	Female % of 91	Male N	Male % of 343	Total N	Total % of 434
Limited by prejudice regarding blindness	12	13.2	37	10.8	49	11.3
Limited only because cannot do parts of job	1	1.1	17	5.0	18	4.1
Same as for seeing persons in same job	59	64.8	213	62.1	272	62.7
Better than usual	7	7.7	22	6.4	29	6.7
Income same, but more expenses	3	3.3	12	3.6	15	3.5
Paid same but could go farther if could see	4	4.4	29	8.4	33	7.6
Limited by nature of employing agency	5	5.5	13	3.8	18	4.1

TABLE 30. *Concern About Stereotyped Attitudes.*

	Female N	Female % of 91	Male N	Male % of 343	Total N	Total % of 434
Found few or none	44	48.4	151	44.0	195	44.9
Met some in school or college	8	8.8	16	4.7	24	5.5
Met some when seeking employment or in job	22	24.2	121	35.3	143	32.9
Met some from general public	30	33.0	94	27.4	124	28.6

TABLE 31. *Attitudes Toward Putting People at Ease.*

Attitudes	Female N	Female % of 91	Male N	Male % of 343	Total N	Total % of 434
Rarely aware need to do so	23	25.3	101	29.4	124	28.6
Be at ease yourself, be independent	28	30.8	113	33.0	141	32.5
Show what you can do, joke about blindness	22	24.2	88	25.7	110	25.3
Be at ease and deliberately talk of blindness	17	18.7	32	9.3	49	11.3

TABLE 32. *Advice.*

Advice regarding	Female N	Female % of 91	Male N	Male % of 343	Total N	Total % of 434
Education	11	12.1	81	23.6	92	21.2
Relating to people	19	20.9	105	20.6	124	28.6
Mobility	3	3.3	21	6.1	24	5.5
Appearance, energy, etc.	15	16.5	81	23.6	96	22.1
Independence and effort	22	24.2	85	25.9	111	25.5
Basic skills	5	5.5	32	9.3	37	8.5
Job seeking and guidance	14	15.4	63	18.4	77	17.7

TABLE 33. *Agency Services.*

	Female N	Female %	Male N	Male %	Total N	Total %
Medical	45	49.4	135	39.3	180	41.4
Psychological	26	28.6	44	12.8	70	16.1
Adjustment	20	22.0	49	14.3	69	15.9
College tuition	52	57.1	144	42.0	196	45.1
Graduate school tuition	5	5.5	27	7.9	32	7.4
Readers	19	20.9	84	24.5	103	23.7
Tools and equipment	17	18.7	60	17.5	77	17.7
Maintenance	25	27.5	56	16.3	81	18.7
Counseling	57	62.6	152	44.3	209	48.1
Placement	30	33.0	52	15.2	82	18.9
No service	17	18.7	106	30.9	123	28.3

Note: Since one individual often received a number of services, percentages are based on the actual number of men and women in the study and do not total 100%.

HV1710 c. 5
B
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Date Due

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AUTHOR
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TITLE professional, sales &
managerial work. c1963.

DATE LOANED	BORROWER'S NAME
~~JAN 7 '67~~	~~Elaine Swanson~~
~~11-6-73~~	~~Judy Silberberg~~
~~1-16-74~~	~~Herbert C. Bowne~~